SAMSUNG ELECTRONICS

DUAL BAND Mobile Cellular Phone

SGH-T100

SERVICE *Manual*

DUAL BAND MOBILE CELLULAR PHONE

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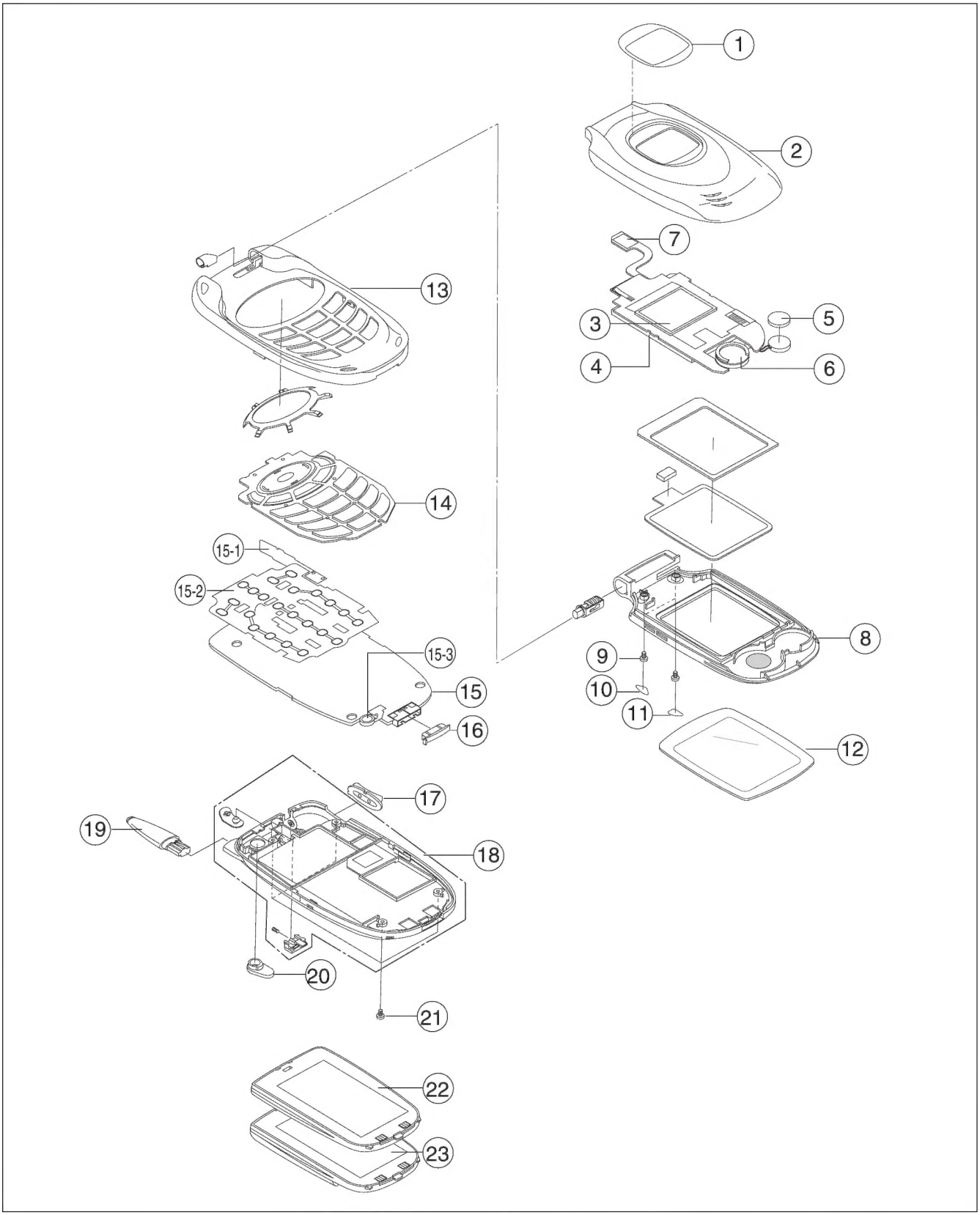
1. SGH-T100 Exploded Views and Parts List

1-1 Main



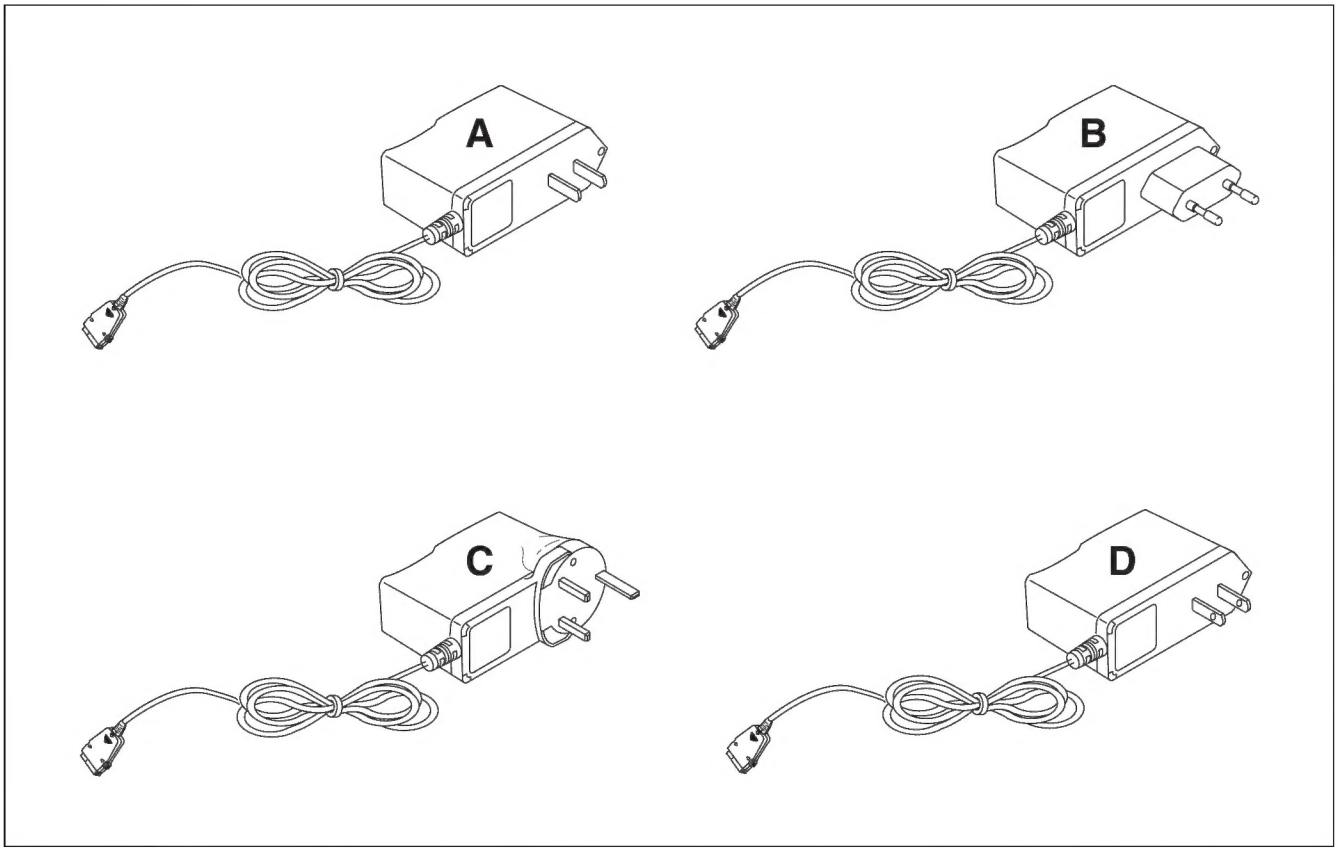
1-2 Main Parts List

Location No.		Description	SEC CODE	Remark
1		DUAL WINDOW LCD	GH72-03659B	
2		FOLDER UPPER	GH75-01772A	
3		LCD F-PCB	GH07-00147A	
4		LCD - TFT	GH07-00126A	
5		MOTOR	3101-001243	
6		SPEAKER	3001-001257	
7		CON TO CON	GH59-00305A	
8		FOLDER LOWER	GH75-01773A	
9		SCREW	6001-001285	
10		SCREW CAP(LEFT)	GH74-02761A	
11		SCREW CAP(RIGHT)	GH74-02760A	
12		WINDOW LCD	GH72-04239B	
13		FRONT COVER	GH75-01776A	
14		KEY PAD	GH75-01861A	
15		MAIN PBA	GH92-01300A	
	15-1	V/K FPCB	GH59-00366A	
	15-2	DOME SHEET	GH59-00365A	
	15-3	MIC	GH59-00336A	
16		CONNECTOR COVER	GH73-00741A	
17		VOLUME KEY	GH75-01205A	
18		REAR COVER	GH75-01777A	
19		ANTENNA	GH42-00164A	
20		MOBILE CAP	GH73-00950A	
21		SCREW	6001-000464	
22		BATTERY	GH43-00512D	
23		BATTERY	GH43-00516D	

SGH-T100 COLOR & CODE

ITEM \ COLOR	SILVER	WHITE PEARL	GOLD	YELLOW GREEN
MEC-FOLDER DUMY	GH75-01774A	GH75-01774A	GH75-01774B	GH75-01774D
MEC-FOLDER UPPER	GH75-01772A	GH75-01772B	GH75-01772C	GH75-01772E
MEC-FOLDER LOWER	GH75-01773A	GH75-01773B	GH75-01773B	GH75-01773E
MEC-FRONT COVER	GH75-01776A	GH75-01776B	GH75-01776C	GH75-01776E
MEC-REAR COVER	GH75-01777A	GH75-01777B	GH75-01777C	GH75-01777E
MPR-SCREW CAP LEFT	GH74-01466A	GH74-01466B	GH74-01466D	GH74-01466F
MPR-SCREW CAP LEFT	GH74-01467A	GH74-01467B	GH74-01467D	GH74-01467F
BATTERY-700M	GH43-00516D	GH43-00516A	GH43-00516B	GH43-00516C
BATTERY-900M	GH43-00512D	GH43-00512A	GH43-00512B	GH43-00512C

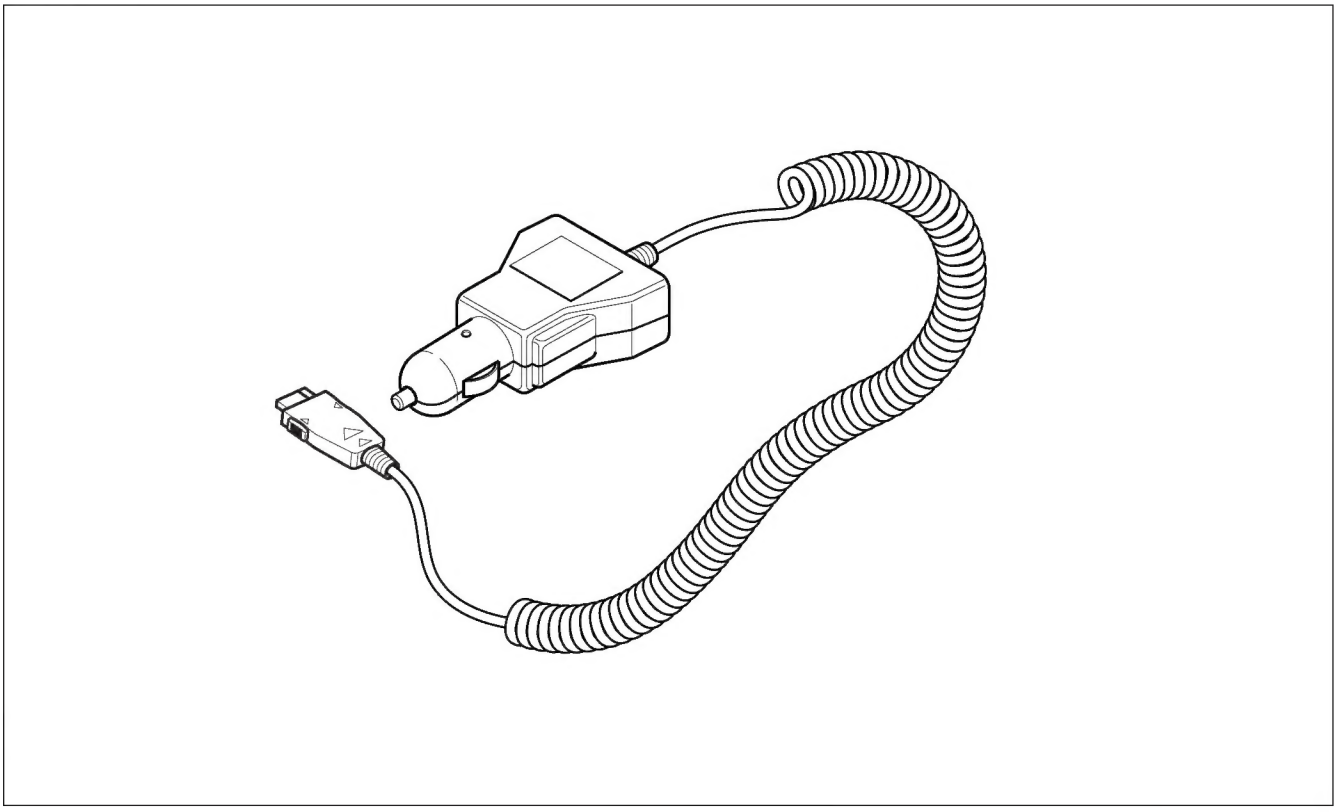
1-3 Travel Adapter



1-4 Travel Adapter Parts List

TYPE	SEC CODE	REMARK
A	GH44-00171A	CHINA
B	GH44-00184A	EUROPE
C	GH44-00171C	UNITED KINGDOM
D	Gh44-00171E	TAIWAN

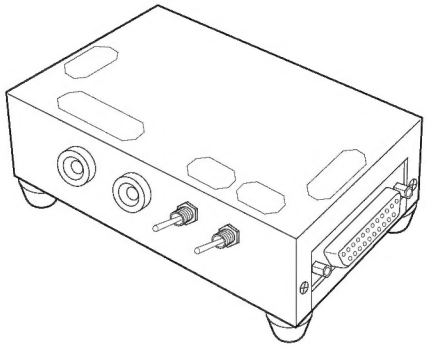
1-5 Ciger Light Adapter



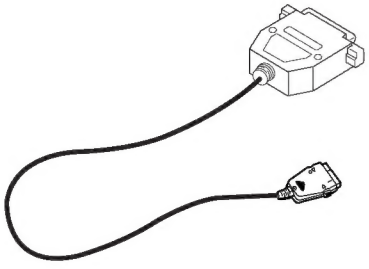
1-6 Ciger Light Adapter Parts List

DESCRIPTION	SEC CODE	REMARK
Ciger Light Adapter Code	GH44-00170A	BLACK

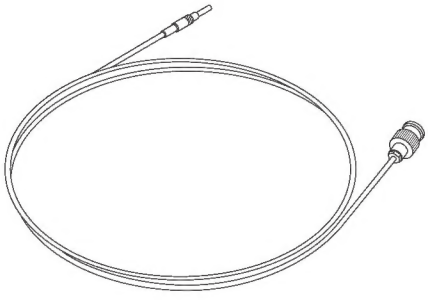
1-7 Test Jig



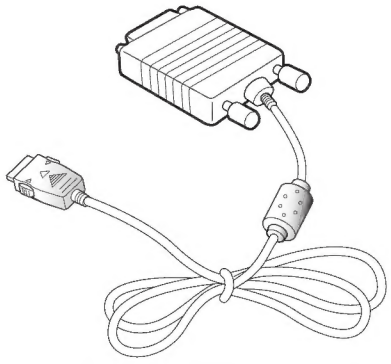
TEST JIG	GH80-10508A



TEST JIG CABLE	GH39-00079A

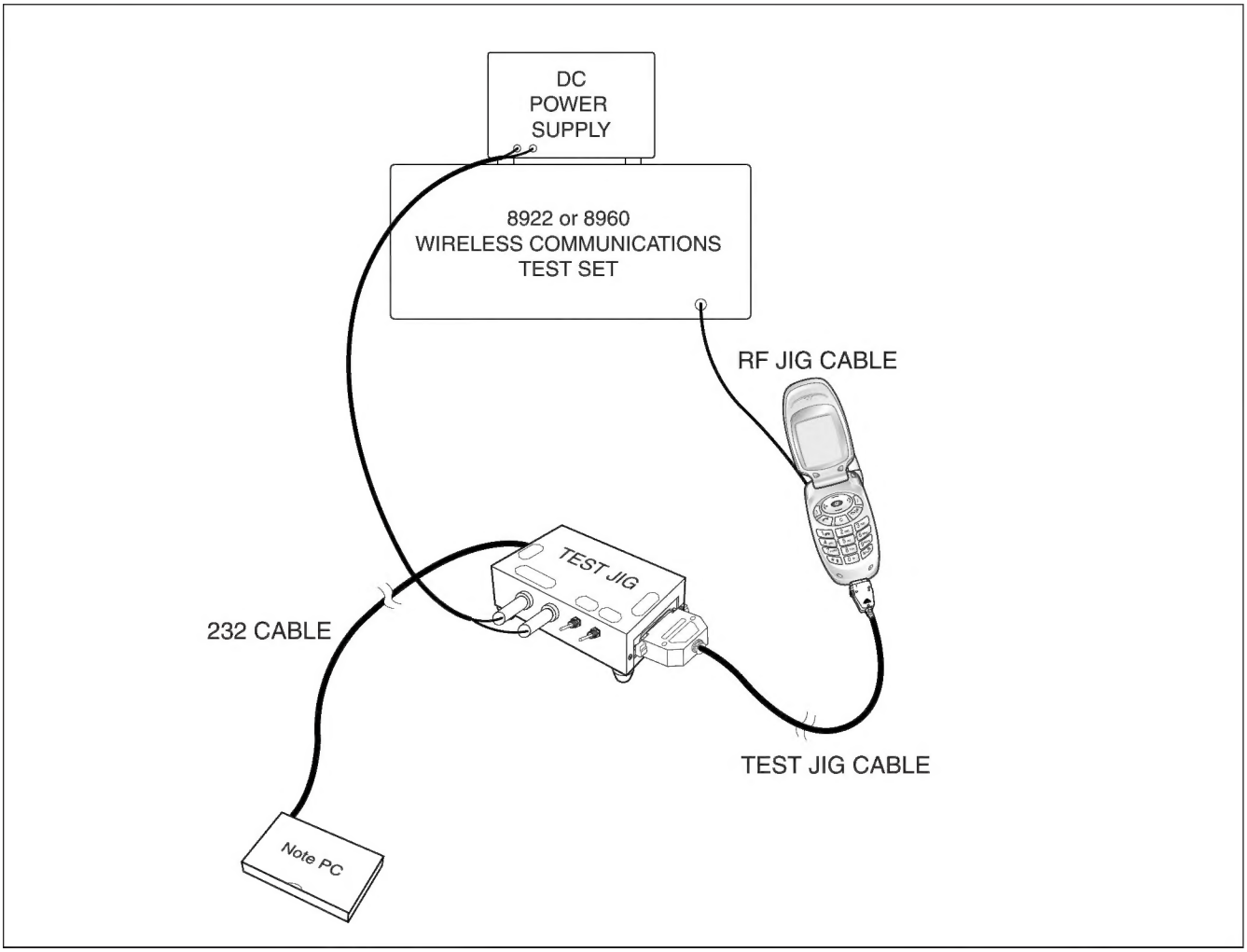


RF JIG CABLE	GH39-0002A

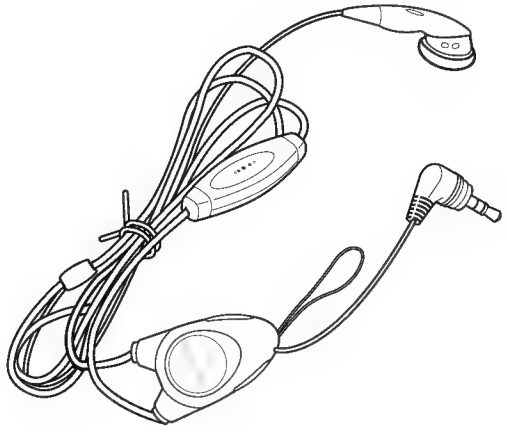


DM CABLE	GH39-00080A

1-7-1 Test Jig

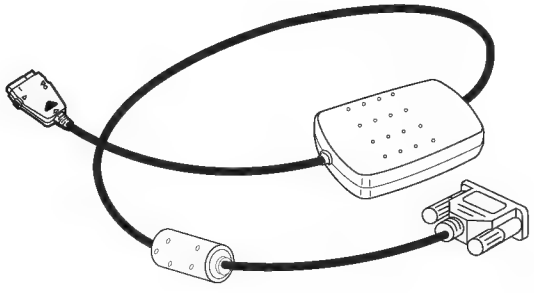


1-8 Wearable EAR Microphone



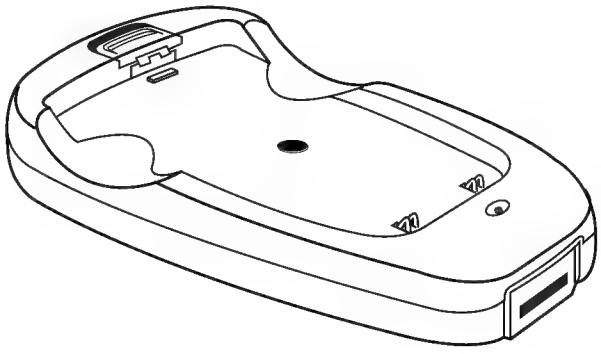
Wearable EAR Microphone	GH59-00322A

1-9 Data Kit



DATA KIT	GH39-00078A

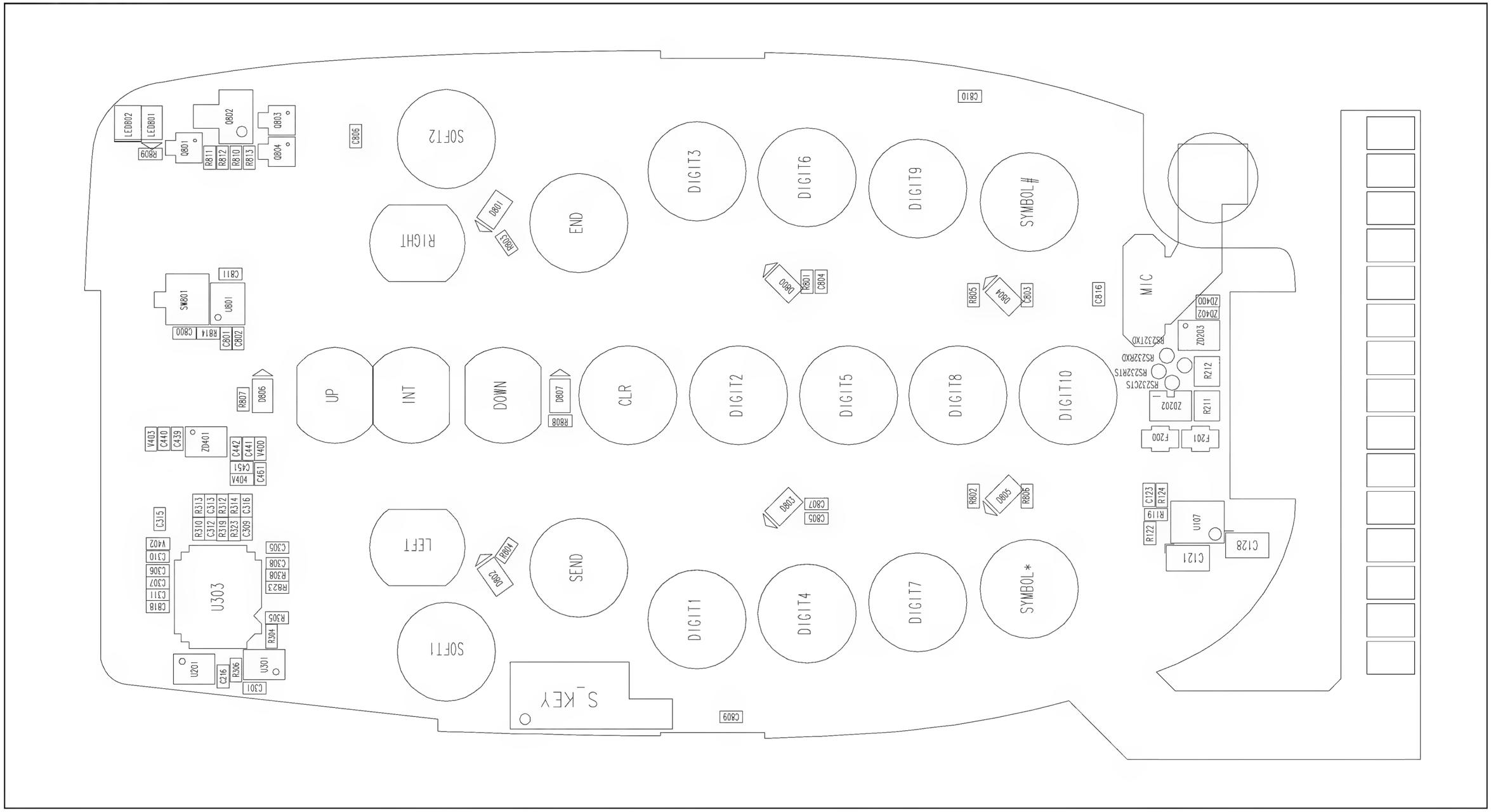
1-10 Battery Charger



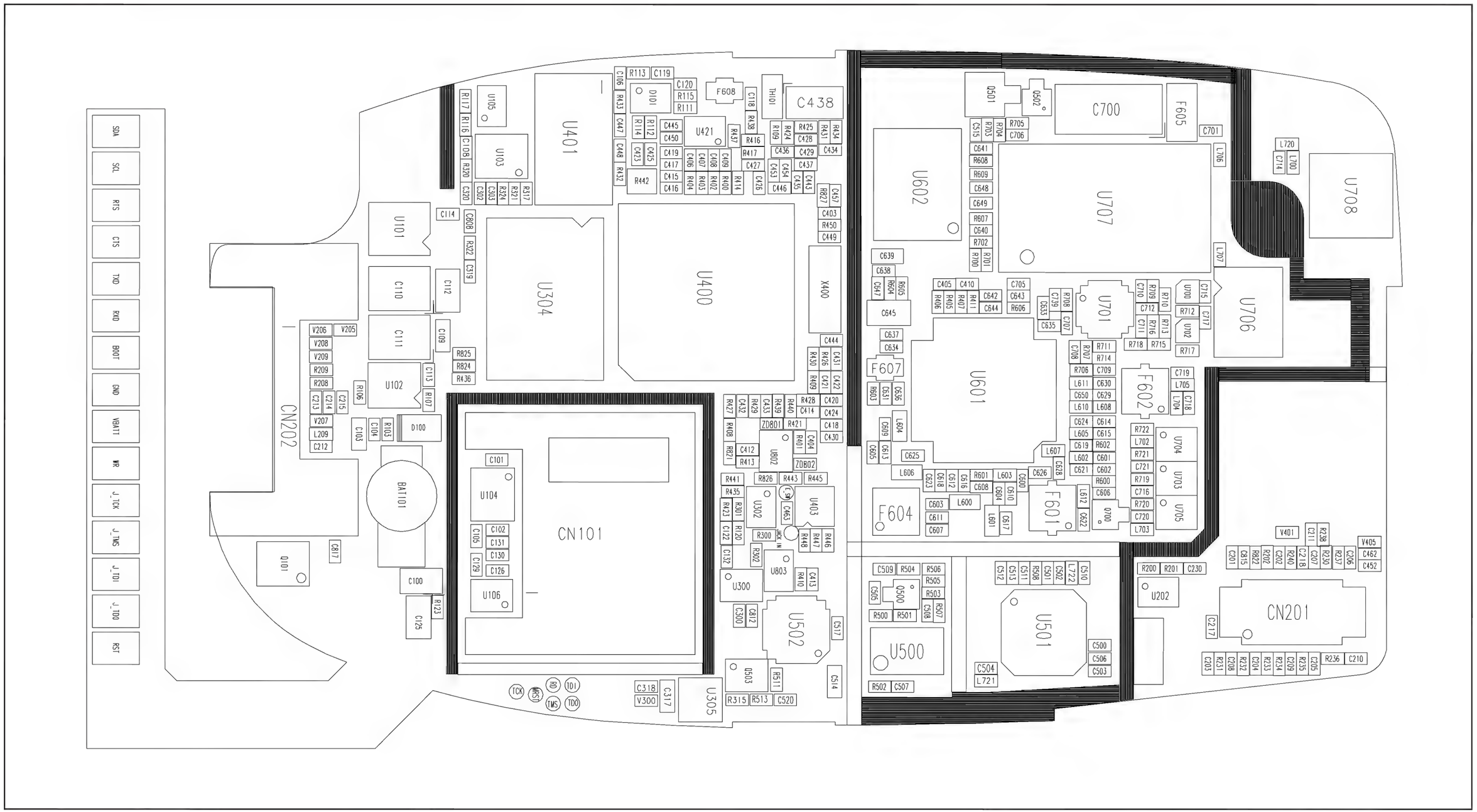
BATTERY CHARGER	GH44-00279A

2. PCB Diagrams

2-1 Main Top



2-2 Main Bottom



3. Electrical Parts List

3-1 Main Parts List Top

NO	SER CODE	Reference	Part Description	Vendor Part No.
1	C304	2203-005664	"C-CERAMIC,CHIP;C475K,4.7UF,6.3V"	JMK212 BJ475KG-T
2	U201	0801-000794	IC;TC7S08FUTE85L	TC7S08FUTE85L
3	C216	2203-000138	"C-CERAMIC,CHIP;C152K,1.5NF,50V"	CL05B152KBNC
4	R306	2007-000148	"R-CHIP;10K,5%"	RC1005J103CS
5	C301	2203-000254	"C-CERAMIC,CHIP;C103K,10NF,16V"	GRP155R71C103KA01E
6	U301	0801-002237	IC;TC7SH04FU-TE85L	TC7SH04FU-TE85L
7	U303	1204-001811	IC;YMU759-QE2	YMU759-QE2
8	R304	2007-001313	"R-CHIP;330,5%"	RC1005J331CS
9	R305	2007-007014	"R-CHIP;51K,5%"	MCR01MZSJ513
10	"D800,D801,D802,D803"	0601-001547	IC;SLS-NNBL102TS	SLS-NNBL102TS
11	"D804,D805,D806,D807"	0601-001547	IC;SLS-NNBL102TS	SLS-NNBL102TS
12	"R801,R802,R803,R804"	2007-007009	"R-CHIP;75ohm,5%"	RC1005J750CS
13	"R805,R806,R807,R808"	2007-007009	"R-CHIP;75ohm,5%"	RC1005J750CS
14	"C803,C804,C805,C806"	2203-000679	"C-CERAMIC,CHIP;C270J,27PF,50V"	GRP1555C1H270JZ01E
15	"C807,C809,C810"	2203-000679	"C-CERAMIC,CHIP;C270J,27PF,50V"	GRP1555C1H270JZ01E
16	C816	2203-000995	"C-CERAMIC,CHIP;C470J,47PF,50V"	GRP1555C1H470JZ01E
17	C121	2404-001105	"C-TA,CHIP;10UF/6.3V"	ECST0JZ106R
18	U107	1203-002127	IC;LTC1734ES6-4.2#TR	LTC1734ES6-4.2#TR
19	C128	2404-001105	"C-TA,CHIP;10UF/6.3V"	ECST0JZ106R
20	R122	2007-007107	"R-CHIP;100K,1%"	RK73H1ETP1003F
21	R119	2007-007590	"R-CHIP;82K,1%"	MCR01MZSF8202
22	C123	2203-005061	"C-CERAMIC,CHIP;C104Z,100NF,16V"	CL05F104ZONC
23	R124	2007-008117	"R-CHIP;2.7K,1%"	RK73H1ETP2701F
24	"F200,F201"	2901-001116	COMP-SMD;NFM39R12C471T1	NFM39R12C471T1
25	ZD202	0406-001104	TR-SMALL SIGNAL;ESDA6V1-5W6	ESDA6V1-5W6
26	ZD203	0406-001083	TR-SMALL SIGNAL;ESDA6V1W5	ESDA6V1W5
27	"R211,R212"	2011-001344	R-CHIP;CRB2A4E101JT	CRB2A4E101JT
28	ZD400	1405-001082	IC;VC040205X150R	VC040205X150R
29	ZD402	1405-001082	IC;VC040205X150R	VC040205X150R
30	C818	2203-000679	"C-CERAMIC,CHIP;C270J,27PF,50V"	GRP1555C1H270JZ01E
31	R810	2007-001306	"R-CHIP;150,5%"	RC1005J151CS
32	R809	2007-000138	"R-CHIP;100,5%"	RC1005J101CS
33	LED802	0601-001402	IC;CL-165HR/YG-D	CL-165HR/YG-D
34	LED801	0601-001547	IC;SLS-NNBL102TS	SLS-NNBL102TS
35	"Q801,Q803,Q804"	0504-001012	TR-SMALL SIGNAL;DTC114YE	DTC114YE
36	Q802	0501-002011	TR-SMALL SIGNAL;2SD2114KT146V	2SD2114KT146V
37	R811	2007-003013	"R-CHIP;2.4K,5%"	RC1005J242CS
38	R812	2007-000162	"R-CHIP;100K,5%"	RC1005J104CS
39	R813	2007-001313	"R-CHIP;330,5%"	RC1005J331CS

NO	SER CODE	Reference	Part Description	Vendor Part No.
40	SW801	1009-001010	IC;A3212ELH-SAMSUNG	A3212ELH-SAMSUNG
41	C811	2203-000679	"C-CERAMIC,CHIP;C270J,27PF,50V"	GRP1555C1H270JZ01E
42	C800	2203-005061	"C-CERAMIC,CHIP;C104Z,100NF,16V"	CL05F104ZONC
43	C801	2203-002443	"C-CERAMIC,CHIP;C331K,330PF,50V"	CL05B331KBNC
44	C802	2203-000679	"C-CERAMIC,CHIP;C270J,27PF,50V"	GRP1555C1H270JZ01E
45	R814	2007-000162	"R-CHIP;100K,5%"	RC1005J104CS
46	U801	0504-001060	TR-SMALL SIGNAL;BCR08PN	BCR08PN
47	"V400,V402,V403,V404"	1405-001082	IC;VC040205X150R	VC040205X150R
48	"C440,C442"	2203-000995	"C-CERAMIC,CHIP;C470J,47PF,50V"	GRP1555C1H470JZ01E
49	ZD401	0406-001084	TR-SMALL SIGNAL;SMF05.TB	SMF05.TB
50	C451	2203-000679	"C-CERAMIC,CHIP;C270J,27PF,50V"	GRP1555C1H270JZ01E
51	C461	2203-005444	"C-CERAMIC,CHIP;C030B,3PF,50V"	GRP1555C1H3R0BZ01E
52	"C307,C310,C311"	2203-000679	"C-CERAMIC,CHIP;C270J,27PF,50V"	GRP1555C1H270JZ01E
53	C306	2203-000870	"C-CERAMIC,CHIP;C030C,3PF,50V"	GRP1555C1H3R0CZ01E
54	"C305,C309,C315"	2203-005061	"C-CERAMIC,CHIP;C104Z,100NF,16V"	CL05F104ZONC
55	C312	2203-001405	"C-CERAMIC,CHIP;C223Z,22NF,25V"	GRP155F51E223ZD01E
56	C313	2203-000654	"C-CERAMIC,CHIP;C271K,270PF,50V"	GRP155R71H271KD01E
57	C316	2203-000885	"C-CERAMIC,CHIP;C472K.4.7NF,25V"	GRP155R71E472KA01E
58	C308	2203-000438	"C-CERAMIC,CHIP;C102K,1NF,50V"	GRP155R71H102KA01E
59	R308	2007-001325	"R-CHIP;3.3K,5%"	RC1005J332CS
60	R823	2007-000162	"R-CHIP;100K,5%"	RC1005J104CS
61	R310	2007-000831	"R-CHIP;39K,5%"	RC1005J393CS
62	"R312,R313,R314"	2007-000775	"R-CHIP;33K,5%"	RK73K1ETP333J

3-2 Main Parts List Bottom

NO	SER CODE	Reference	Part Description	Vendor Part No.
1	D100	0401-001033	TR-SMALL SIGNAL;MCL4154	MCL4154
2	D101	0407-001007	TR-SMALL SIGNAL;UMN1	UMN1
3	Q500	0501-000225	TR-SMALL SIGNAL;2SC4617	2SC4617
4	Q101	0502-001201	TR-SMALL SIGNAL;ZXT13P20DE6	ZXT13P20DE6
5	Q502	0504-000167	TR-SMALL SIGNAL;DTC114EE/TR	DTC114EE/TR
6	Q700	0504-001012	TR-SMALL SIGNAL;DTC114YE	DTC114YE
7	Q501	0504-001021	TR-SMALL SIGNAL;DTB113ZK	DTB113ZK
8	"U703,U704,U705"	0504-001060	TR-SMALL SIGNAL;BCR08PN	BCR08PN
9	U802	0504-001060	TR-SMALL SIGNAL;BCR08PN	BCR08PN
10	U102	0505-001376	TR-SMALL SIGNAL;SI3865DV	SI3865DV
11	"Q503,U106,U300"	0505-001423	TR-SMALL SIGNAL;FDG6323L	FDG6323L
12	U105	0506-001004	LED;UMC5NTL	UMC5NTL
13	U803	0801-002237	IC;TC7SH04FU-TE85L	TC7SH04FU-TE85L
14	"U202,U302"	0801-002540	IC;NC7SZ19P6X	NC7SZ19P6X
15	U421	1001-001145	IC;MAX4599EXT-T	MAX4599EXT-T
16	U305	1003-001440	IC;MDC3105LT1	MDC3105LT1
17	U401	1103-001262	IC;AT24C512-10CI-2.7	AT24C512-10CI-2.7
18	U304	1109-001218	IC;LRS1806	LRS1806
19	U403	1201-001729	IC;LMC6035IBPX	LMC6035IBPX
20	U707	1201-001785	IC;PF08123B	PF08123B
21	U104	1203-001518	IC;MIC5219-3.3BM5	MIC5219-3.3BM5
22	U103	1203-002247	IC;S-80926ALMP-DAP-T2	S-80926ALMP-DAP-T2
23	U502	1203-002484	IC;MAX8890	MAX8890
24	U101	1203-002509	IC;R5323N301B	R5323N301B
25	U400	1205-001881	IC;VP40575	VP40575
26	U601	1205-001935	IC;HD155128TF	HD155128TF
27	U501	1209-001337	IC;SI4133-MLP28	SI4133-MLP28
28	U701	1209-001379	IC;HD155173ANPEL	HD155173ANPEL
29	TH101	1404-001005	IC;NTH5G40B473J01TE	NTH5G40B473J01TE
30	V401	1405-001082	IC;VC040205X150R	VC040205X150R
31	V405	1405-001082	IC;VC040205X150R	VC040205X150R
32	ZD802	1405-001082	IC;VC040205X150R	VC040205X150R
33	"V205,V206,V207,V208"	1405-001093	IC;VC040214X200	VC040214X200
34	V209	1405-001093	IC;VC040214X200	VC040214X200
35	"R208,R209,R604"	2007-000138	"R-CHIP;100,5%"	RC1005J101CS
36	"R424,R434"	2007-000139	"R-CHIP;220,5%"	RC1005J221CS
37	"R103,R107,R230,R231"	2007-000140	"R-CHIP;1K,5%"	RC1005J102CS
38	"R232,R233,R234,R235"	2007-000140	"R-CHIP;1K,5%"	RC1005J102CS
39	"R236,R237,R238,R240"	2007-000140	"R-CHIP;1K,5%"	RC1005J102CS
40	"R506,R507,R603,R822"	2007-000140	"R-CHIP;1K,5%"	RC1005J102CS
41	"R432,R433"	2007-000141	"R-CHIP;2.2K,5%"	RC1005J222CS
42	R315	2007-000143	"R-CHIP;4.7K,5%"	RC1005J472CS
43	"R123,R324,R401"	2007-000148	"R-CHIP;10K,5%"	RC1005J103CS

NO	SER CODE	Reference	Part Description	Vendor Part No.
44	“R414,R416,R417,R421”	2007-000148	“R-CHIP;10K,5%”	RC1005J103CS
45	“R435,R440,R502,R508”	2007-000148	“R-CHIP;10K,5%”	RC1005J103CS
46	“R511,R714,R719,R720”	2007-000148	“R-CHIP;10K,5%”	RC1005J103CS
47	R721	2007-000148	“R-CHIP;10K,5%”	RC1005J103CS
48	R423	2007-000152	“R-CHIP;20K,5%”	RC1005J203CS
49	R711	2007-000153	“R-CHIP;22K,5%”	RC1005J223CS
50	R505	2007-000155	“R-CHIP;27K,5%”	RC1005J273CS
51	“R426,R430”	2007-000157	“R-CHIP;47K,5%”	RC1005J473CS
52	“R106,R112,R113,R114”	2007-000162	“R-CHIP;100K,5%”	RC1005J104CS
53	“R115,R116,R117,R200”	2007-000162	“R-CHIP;100K,5%”	RC1005J104CS
54	“R201,R300,R301,R302”	2007-000162	“R-CHIP;100K,5%”	RC1005J104CS
55	“R317,R321,R322,R408”	2007-000162	“R-CHIP;100K,5%”	RC1005J104CS
56	“R409,R410,R413,R427”	2007-000162	“R-CHIP;100K,5%”	RC1005J104CS
57	“R429,R437”	2007-000162	“R-CHIP;100K,5%”	RC1005J104CS
58	“R824,R825,R826”	2007-000162	“R-CHIP;100K,5%”	RC1005J104CS
59	R428	2007-000168	“R-CHIP;470K,5%”	RC1005J474CS
60	“R446,R447”	2007-000170	“R-CHIP;1M,5%”	RC1005J105CS
61	“R500,R713”	2007-000172	“R-CHIP;10,5%”	RC1005J100CS
62	“R600,R602”	2007-000173	“R-CHIP;22,5%”	RC1005J220CS
63	“R609,R709,R710,R715”	2007-000174	“R-CHIP;47,5%”	RC1005J470CS
64	R716	2007-000174	“R-CHIP;47,5%”	RC1005J470CS
65	R504	2007-000242	“R-CHIP;1.5K,5%”	RC1005J152CS
66	R722	2007-000831	“R-CHIP;39K,5%”	RC1005J393CS
67	“R703,R704”	2007-001288	“R-CHIP;18,5%”	RC1005J180CS
68	“R605,R701,R702”	2007-001290	“R-CHIP;24,5%”	MCR01MZSJ240
69	R718	2007-001292	“R-CHIP;33,5%”	MCR01MZSJ330
70	R700	2007-001295	“R-CHIP;39,5%”	RC1005J390CS
71	“R705,R712,R717”	2007-001298	“R-CHIP;51,5%”	MCR01MZSJ510
72	“R607,R608”	2007-001313	“R-CHIP;330,5%”	RC1005J331CS
73	R503	2007-001325	“R-CHIP;3.3K,5%”	RC1005J332CS
74	“R425,R431”	2007-002796	“R-CHIP;510,5%”	MCR01MZSJ511
75	R448	2007-003029	R-CHIP;820K.5%	MCR01MZSJ824
76	R601	2007-007001	“R-CHIP;3.9K,5%”	RC1005J392CS
77	R501	2007-007013	“R-CHIP;9.1K,5%”	RC1005J912CS
78	R606	2007-007135	“R-CHIP;18K,1%”	MCR01MZSF1802
79	“R706,R707”	2007-007142	“R-CHIP;10K,1%”	RK73H1ETP1002F
80	R708	2007-007314	“R-CHIP;5.6K,1%”	MCR01MZSF5601
81	“R400,R402,R403,R404”	2007-007317	“R-CHIP;2.2K,1%”	MCR01MZSF2201
82	“R405,R406,R407,R411”	2007-007318	“R-CHIP;1K,1%”	RK73H1ETP1001F
83	R445	2007-007468	“R-CHIP;121K,1%”	MCR01MZSF1213
84	R109	2007-007538	“R-CHIP;56K,1%”	MCR01MZSF5602
85	R513	2007-007766	“R-CHIP;2K,1%”	RC1005F2001CS
86	“R111,R202,R320,R436”	2007-007771	“R-CHIP;0,5%”	RC1005J000CS

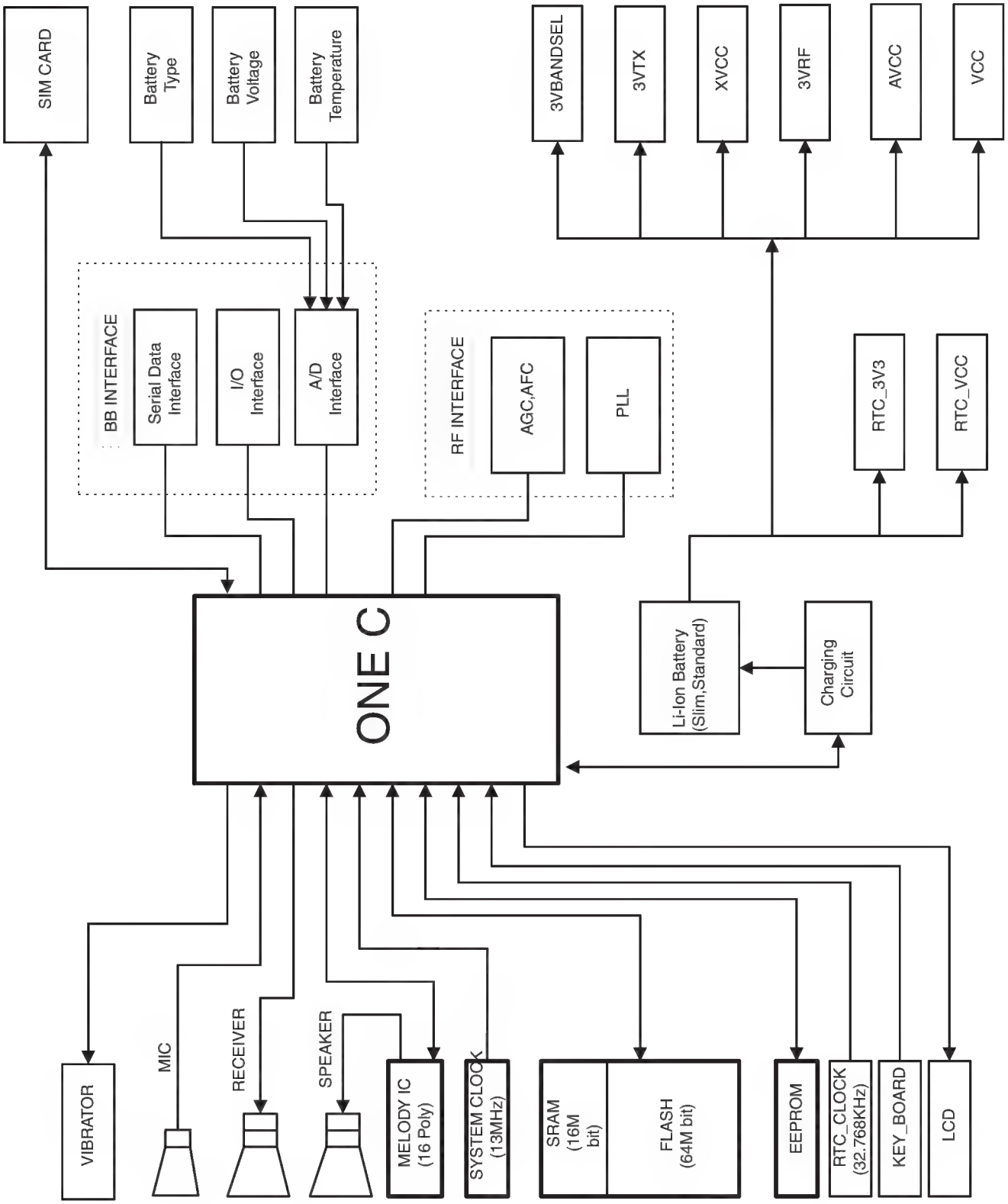
NO	SER CODE	Reference	Part Description	Vendor Part No.
87	"R438,R827"	2007-007771	"R-CHIP;0,5%"	RC1005J000CS
88	R443	2007-007981	"R-CHIP;180K,1%"	ERJ2RKF1803X
89	R442	2011-001345	R-CHIP;EXB28V103JX	EXB28V103JX
90	"C101,C406,C407,C408"	2203-000233	"C-CERAMIC,CHIP;C101J,100PF,50V"	GRP1555C1H101JD01E
91	"C409,C457,C600"	2203-000233	"C-CERAMIC,CHIP;C101J,100PF,50V"	GRP1555C1H101JD01E
92	"C102,C104,C106,C113"	2203-000254	"C-CERAMIC,CHIP;C103K,10NF,16V"	GRP155R71C103KA01E
93	"C114,C126,C300"	2203-000254	"C-CERAMIC,CHIP;C103K,10NF,16V"	GRP155R71C103KA01E
94	"C303,C404,C415,C418"	2203-000254	"C-CERAMIC,CHIP;C103K,10NF,16V"	GRP155R71C103KA01E
95	"C419,C420,C421,C427"	2203-000254	"C-CERAMIC,CHIP;C103K,10NF,16V"	GRP155R71C103KA01E
96	"C463,C505,C507,C508"	2203-000254	"C-CERAMIC,CHIP;C103K,10NF,16V"	GRP155R71C103KA01E
97	"C509,C603,C637,C638"	2203-000254	"C-CERAMIC,CHIP;C103K,10NF,16V"	GRP155R71C103KA01E
98	C642	2203-000254	"C-CERAMIC,CHIP;C103K,10NF,16V"	GRP155R71C103KA01E
99	C812	2203-000254	"C-CERAMIC,CHIP;C103K,10NF,16V"	GRP155R71C103KA01E
100	C648	2203-000278	"C-CERAMIC,CHIP;C100D,10PF,50V"	GRP1555C1H100JZ01E
101	C708	2203-000311	"C-CERAMIC,CHIP;C121J,120PF,50V"	GRP1555C1H121JD01E
102	C623	2203-000359	"C-CERAMIC,CHIP;C151J,150PF,50V"	GRP1555C1H151JD01E
103	"C605,C610,C613,C614"	2203-000425	"C-CERAMIC,CHIP;C180J,18PF,50V"	GRP1555C1H180JZ01E
104	C626	2203-000425	"C-CERAMIC,CHIP;C180J,18PF,50V"	GRP1555C1H180JZ01E
105	"C506,C602,C606"	2203-000438	"C-CERAMIC,CHIP;C102K,1NF,50V"	GRP155R71H102KA01E
106	"C612,C615,C616,C617"	2203-000438	"C-CERAMIC,CHIP;C102K,1NF,50V"	GRP155R71H102KA01E
107	"C618,C625,C633,C634"	2203-000438	"C-CERAMIC,CHIP;C102K,1NF,50V"	GRP155R71H102KA01E
108	"C635,C644,C707,C711"	2203-000438	"C-CERAMIC,CHIP;C102K,1NF,50V"	GRP155R71H102KA01E
109	C716	2203-000438	"C-CERAMIC,CHIP;C102K,1NF,50V"	GRP155R71H102KA01E
110	C646	2203-000609	"C-CERAMIC,CHIP;C223K,22NF,50V"	GRM216R71H223KA01D
111	"C122,C130,C131,C132"	2203-000679	"C-CERAMIC,CHIP;C270J,27PF,50V"	GRP1555C1H270JZ01E
112	"C201,C202,C203,C204"	2203-000679	"C-CERAMIC,CHIP;C270J,27PF,50V"	GRP1555C1H270JZ01E
113	"C205,C206,C207,C208"	2203-000679	"C-CERAMIC,CHIP;C270J,27PF,50V"	GRP1555C1H270JZ01E
114	"C209,C210,C211,C212"	2203-000679	"C-CERAMIC,CHIP;C270J,27PF,50V"	GRP1555C1H270JZ01E
115	"C213,C214,C217,C218"	2203-000679	"C-CERAMIC,CHIP;C270J,27PF,50V"	GRP1555C1H270JZ01E
116	C403	2203-000679	"C-CERAMIC,CHIP;C270J,27PF,50V"	GRP1555C1H270JZ01E
117	"C430,C431,C432,C433"	2203-000679	"C-CERAMIC,CHIP;C270J,27PF,50V"	GRP1555C1H270JZ01E
118	"C434,C436,C444,C445"	2203-000679	"C-CERAMIC,CHIP;C270J,27PF,50V"	GRP1555C1H270JZ01E
119	"C449,C452,C453"	2203-000679	"C-CERAMIC,CHIP;C270J,27PF,50V"	GRP1555C1H270JZ01E
120	"C454,C601,C631,C636"	2203-000679	"C-CERAMIC,CHIP;C270J,27PF,50V"	GRP1555C1H270JZ01E
121	"C649,C720,C721"	2203-000679	"C-CERAMIC,CHIP;C270J,27PF,50V"	GRP1555C1H270JZ01E
122	C808	2203-000679	"C-CERAMIC,CHIP;C270J,27PF,50V"	GRP1555C1H270JZ01E
123	"C815,C817"	2203-000679	"C-CERAMIC,CHIP;C270J,27PF,50V"	GRP1555C1H270JZ01E
124	"C412,C413,C414,C416"	2203-000812	"C-CERAMIC,CHIP;C330J,33PF,50V"	GRP1555C1H330JZ01E
125	"C417,C422,C423,C424"	2203-000812	"C-CERAMIC,CHIP;C330J,33PF,50V"	GRP1555C1H330JZ01E
126	"C425,C429,C447,C448"	2203-000812	"C-CERAMIC,CHIP;C330J,33PF,50V"	GRP1555C1H330JZ01E
127	"C640,C641"	2203-000812	"C-CERAMIC,CHIP;C330J,33PF,50V"	GRP1555C1H330JZ01E
128	C462	2203-000870	"C-CERAMIC,CHIP;C030C,3PF,50V"	GRP1555C1H3R0CZ01E
129	C105	2203-000940	"C-CERAMIC,CHIP;C471K,470PF,50V"	GRP155R71H471KD01E

NO	SER CODE	Reference	Part Description	Vendor Part No.
130	"C629,C630"	2203-000995	"C-CERAMIC,CHIP;C470J,47PF,50V"	GRP1555C1H470JZ01E
131	"C705,C706,C710,C712"	2203-000995	"C-CERAMIC,CHIP;C470J,47PF,50V"	GRP1555C1H470JZ01E
132	"C715,C717,C718"	2203-000995	"C-CERAMIC,CHIP;C470J,47PF,50V"	GRP1555C1H470JZ01E
133	C739	2203-001124	"C-CERAMIC,CHIP;C681K,680PF,50V"	GRP155R71H681KD01E
134	C709	2203-001239	"C-CERAMIC,CHIP;C820J,82PF,50V"	GRP1555C1H820JD01E
135	C650	2203-001385	"C-CERAMIC,CHIP;C1R5C,1.5PF,50V"	GRP1555C1H1R5CZ01E
136	C801	2203-002443	"C-CERAMIC,CHIP;C331K,330PF,50V"	CL05B331KBNC
137	"C504,C510"	2203-002525	"C-CERAMIC,CHIP;C561K,560PF,50V"	GRP155R71H561KD01E
138	C643	2203-002687	"C-CERAMIC,CHIP;C122K,1.2NF,50V"	CL05B122KBNC
139	"C607,C611"	2203-003054	"C-CERAMIC,CHIP;C090C,9PF,50V"	GRP1555C1H9R0DZ01E
140	C719	2203-005053	"C-CERAMIC,CHIP;C3R9C,3.9PF,50V"	CL05C3R9CBNC
141	C621	2203-005054	"C-CERAMIC,CHIP;C4R7C,4.7PF,50V"	GRP1555C1H4R7CZ01E
142	C619	2203-005056	"C-CERAMIC,CHIP;C6R8C,6.8PF,50V"	GRP1555C1H6R8CZ01E
143	"C428,C701"	2203-005057	"C-CERAMIC,CHIP;C8R2C,8.2PF,50V"	GRP1555C1H8R2CZ01E
144	"C118,C119,C120"	2203-005061	"C-CERAMIC,CHIP;C104Z,100NF,16V"	CL05F104ZONC
145	"C129,C215,C230,C302"	2203-005061	"C-CERAMIC,CHIP;C104Z,100NF,16V"	CL05F104ZONC
146	C319	2203-005061	"C-CERAMIC,CHIP;C104Z,100NF,16V"	CL05F104ZONC
147	"C426,C500,C501,C502"	2203-005061	"C-CERAMIC,CHIP;C104Z,100NF,16V"	CL05F104ZONC
148	"C503,C515,C517,C520"	2203-005061	"C-CERAMIC,CHIP;C104Z,100NF,16V"	CL05F104ZONC
149	"C103,C109,C514,C639"	2203-005065	"C-CERAMIC,CHIP;C105Z,1UF,10V"	GRM188F51A105ZC01D
150	C608	2203-005288	"C-CERAMIC,CHIP;C010B,1PF,50V"	CL05C010BBNC
151	C609	2203-005393	"C-CERAMIC,CHIP;C050B,5PF,50V"	GRP1555C1H5R0BZ01E
152	C450	2203-005444	"C-CERAMIC,CHIP;C030B,3PF,50V"	GRP1555C1H3R0BZ01E
153	"C108,C435,C443"	2203-005480	"C-CERAMIC,CHIP;C333K,33NF,10V"	GRP155R71A333KA01E
154	C446	2203-005481	"C-CERAMIC,CHIP;C473K,47NF,10V"	GRP155R71A473KA01E
155	"C405,C410"	2203-005503	"C-CERAMIC,CHIP;C1801J,180PF,25V"	GRP1556C1E181JD01E
156	"C107,C115,C314"	2203-005664	"C-CERAMIC,CHIP;C475K,4.7UF,6.3V"	JMK212 BJ475KG-T
157	"C516,C518,C521,C814"	2203-005664	"C-CERAMIC,CHIP;C475K,4.7UF,6.3V"	JMK212 BJ475KG-T
158	C645	2301-001232	"C-CERAMIC,CHIP;470PF,50V"	ECHU1H471JX5
159	"C100,C112,C125"	2404-001105	"C-TA,CHIP;10UF/6.3V"	ECST0JZ106R
160	"C110,C111"	2404-001134	"C-TA,CHIP;100UF/6.3V"	595D107X06R3B2T
161	C438	2404-001162	"C-TA,CHIP;F950G476MAAJZTQ2"	F950G476MAAJZTQ2
162	C700	2404-001280	"C-TA,CHIP;220UF/6.3V"	F750J227MUCGZT
163	"L600,L601"	2703-001293	INDUCTOR-SMD;HK1608-82NJ-T	HK1608-82NJ-T
164	L604	2703-001514	INDUCTOR-SMD;0603CS-68NXJBC	0603CS-68NXJBC
165	L606	2703-001685	INDUCTOR-SMD;0603CS-82NXJBC	0603CS-82NXJBC
166	L612	2703-001724	INDUCTOR-SMD;LL1005-FH1N2S	LL1005-FH1N2S
167	L700	2703-001733	INDUCTOR-SMD;LL1005-FH8N2J	LL1005-FH8N2J
168	"L720,L721"	2703-001750	INDUCTOR-SMD;LL1005-FH2N2S	LL1005-FH2N2S
169	L722	2703-001786	INDUCTOR-SMD;LL1005-FH10NJ	LL1005-FH10NJ
170	L705	2703-002170	INDUCTOR-SMD;CIH05T6N8JNC	CIH05T6N8JNC
171	"L605,L704,L707"	2703-002198	INDUCTOR-SMD;CIH05T10NJNC	CIH05T10NJNC
172	L603	2703-002200	INDUCTOR-SMD;CIH05T18NJNC	CIH05T18NJNC

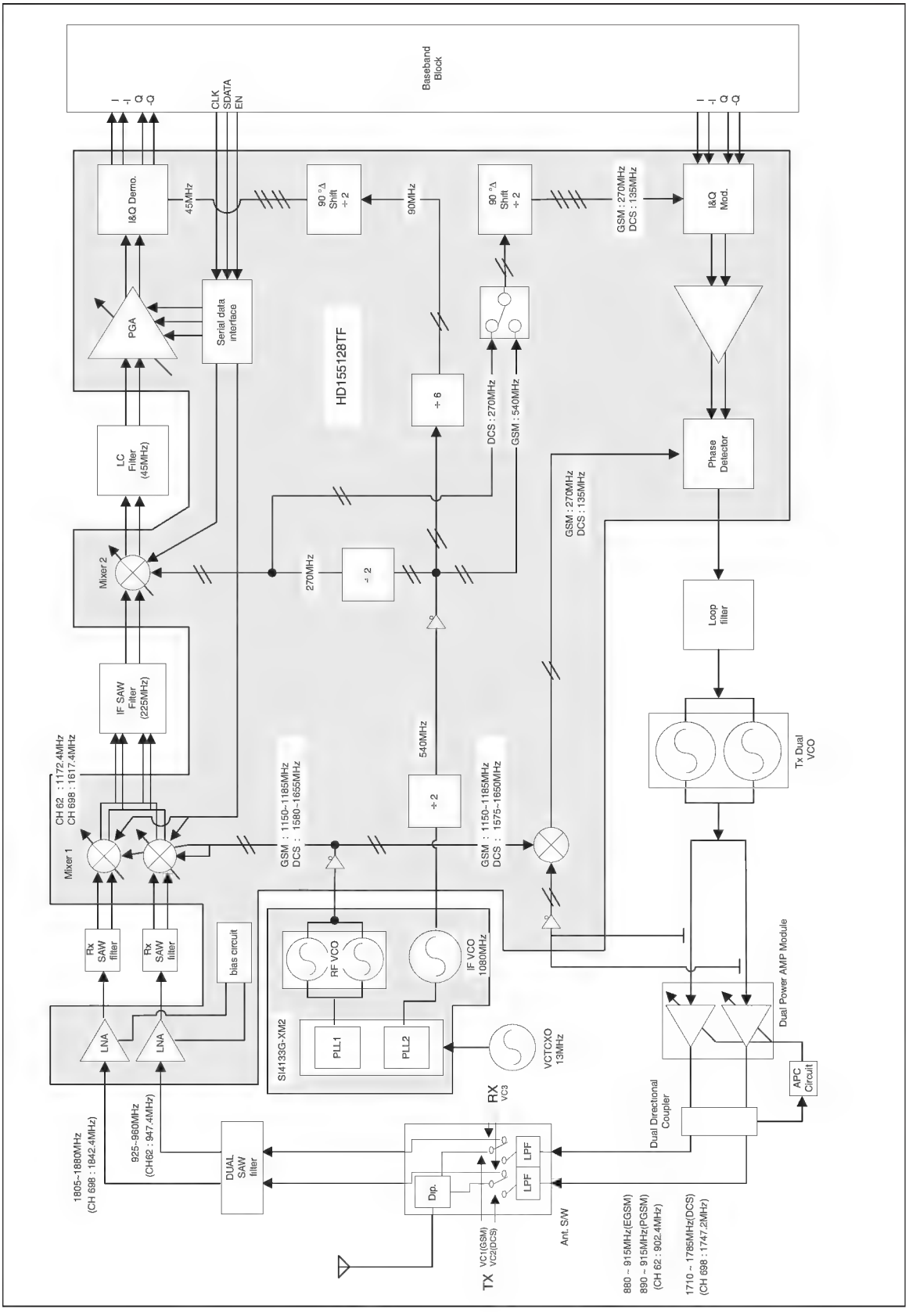
NO	SER CODE	Reference	Part Description	Vendor Part No.
173	“L702,L703”	2703-002201	INDUCTOR-SMD;CIH05T33NJNC	CIH05T33NJNC
174	L209	2703-002206	INDUCTOR-SMD;CIH05T39NJNC	CIH05T39NJNC
175	L611	2703-002207	INDUCTOR-SMD;CIH05T3N3SNC	CIH05T3N3SNC
176	“L610,L706”	2703-002267	INDUCTOR-SMD;CIH05T4N7SNC	CIH05T4N7SNC
177	“L602,L607”	2703-002281	INDUCTOR-SMD;CIH05T5N6SNC	CIH05T5N6SNC
178	X400	2801-004025	COMP-SMD;FC-255	FC-255
179	U602	2806-001273	COMP-SMD;ENFVHZ	ENFVHZ
180	U500	2809-001260	COMP-SMD;VCO-TCXO	TCO-9141B(13MHz)
181	F607	2901-001116	COMP-SMD;NFM39R12C471T1	NFM39R12C471T1
182	F605	2901-001155	COMP-SMD;NFM60R00T221	NFM60R00T221
183	F608	2901-001215	COMP-SMD;NFM21PC104R1E3D	NFM21PC104R1E3D
184	“F601,F602”	2904-001328	COMP-SMD;FAR-F6CS-1G8425-L250	FAR-F6CS-1G8425-L250
185	F604	2904-001348	COMP-SMD;JMK42-0031B	JMK42-0031B
186	U706	2909-001146	COMP-SMD;ES-A5010B	ES-A5010B
187	U708	3705-001255	COMP-SMD;KMS-158	KMS-158
188	CN101	3709-001190	COMP-SMD;C70710M0060972	C70710M0060972
189	CN202	3710-001816	COMP-SMD;1004-0018-319	1004-0018-319
190	CN201	3711-004980	COMP-SMD;connector	AXK6F26335J
191	CN401	3722-001715	COMP-SMD;02-828P0-53BKA	02-828P0-53BKA
192	BAT101	4302-001119	COMP-SMD;MS414 FL26N	MS414 FL26N
193	U700	4709-001267	COMP-SMD;LDC10B200J0897	LDC10B200J0897
194	U702	4709-001268	COMP-SMD;LDC15H200J	LDC15H200J

4. Block Diagrams

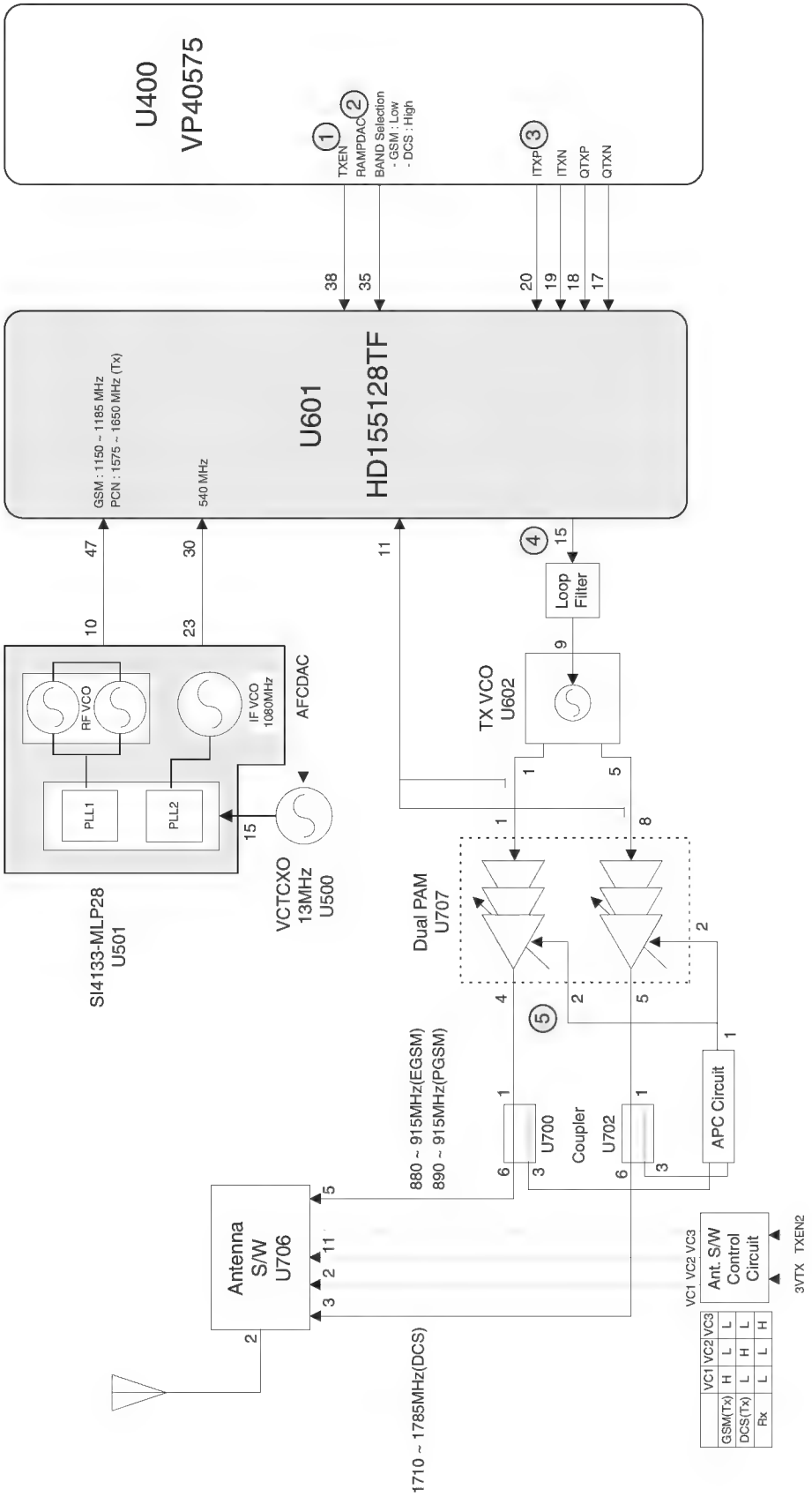
4-1 Main Base Band



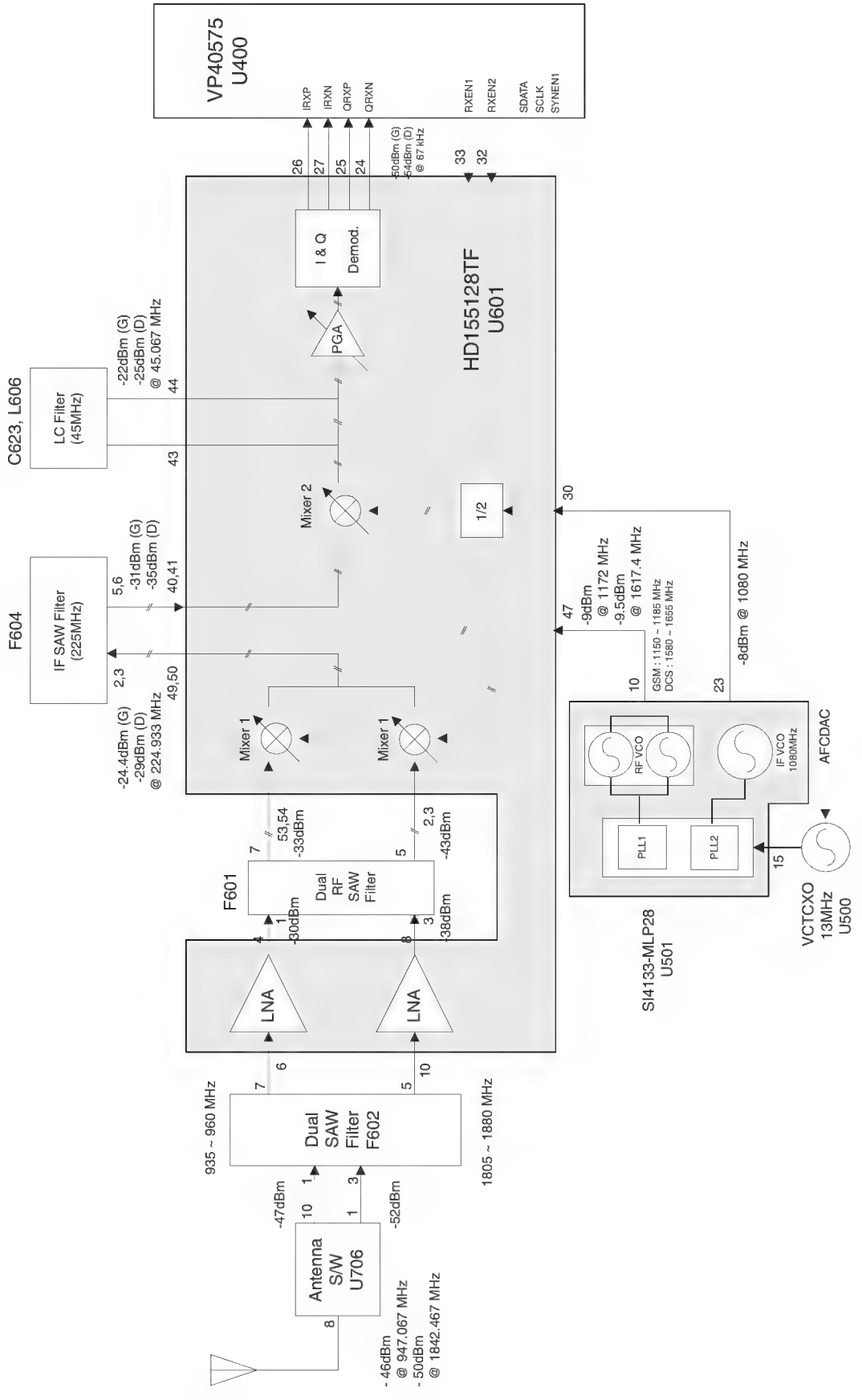
4-2 Main RF


Baseband Block
I
-I
Q
-Q
CLK
SDATA
EN
I&Q Demo.
45MHz
90 °Δ Shift ÷ 2
90MHz
90 °Δ Shift ÷ 2
GSM : 270MHz
DCS : 135MHz
I&Q Mod.
PGA
Serial data interface
HD155128TF
÷ 6
DCS : 270MHz
GSM : 540MHz
LC Filter (45MHz)
Phase Detector
GSM : 270MHz
DCS : 135MHz
Mixer 2
270MHz
÷ 2
Loop filter
IF SAW Filter (225MHz)
540MHz
Tx Dual VCO
CH 62 : 1172.4MHz
CH 698 : 1617.4MHz
GSM : 1150~1185MHz
DCS : 1580~1655MHz
÷ 2
GSM : 1150~1165MHz
DCS : 1575~1650MHz
Mixer 1
Rx SAW filter
Rx SAW filter
bias circuit
RF VCO
IF VCO 1080MHz
Dual Power AMP Module
LNA
LNA
SI4133G-XM2
PLL1
PLL2
VCTCXO 13MHz
APC Circuit
RX
VC3
1805~1880MHz
(CH 698 : 1842.4MHz)
925~960MHz
(CH62 : 947.4MHz)
DUAL SAW filter
Dip.
LPF
LPF
Dual Directional Coupler
TX
VC1(GSM)
VC2(DCS)
Ant. S/W
880 ~ 915MHz(EGSM)
890 ~ 915MHz(PGSM)
(CH 62 : 902.4MHz)
1710 ~ 1785MHz(DCS)
(CH 698 : 1747.2MHz)

4-2-1 RF Transmit Part

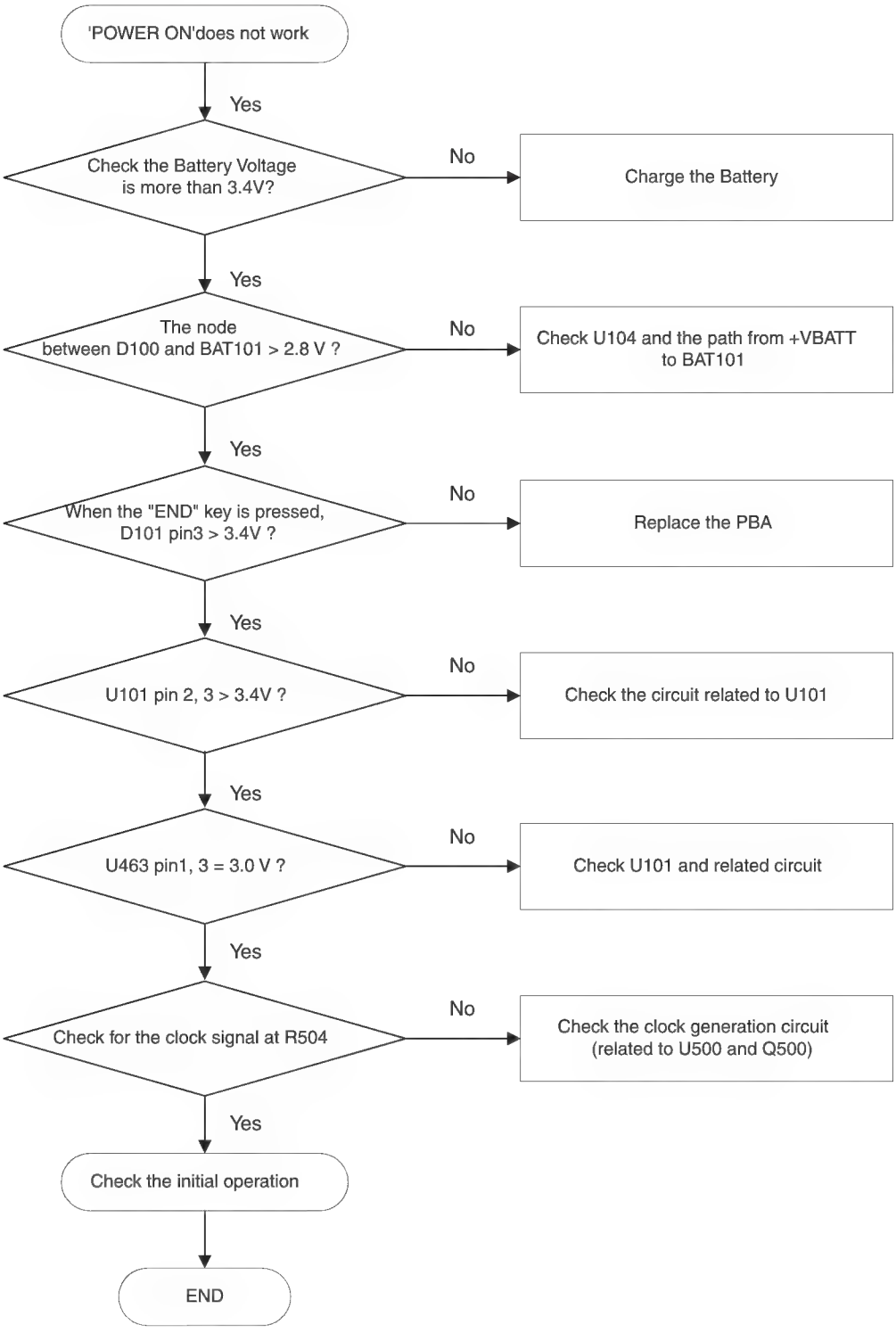


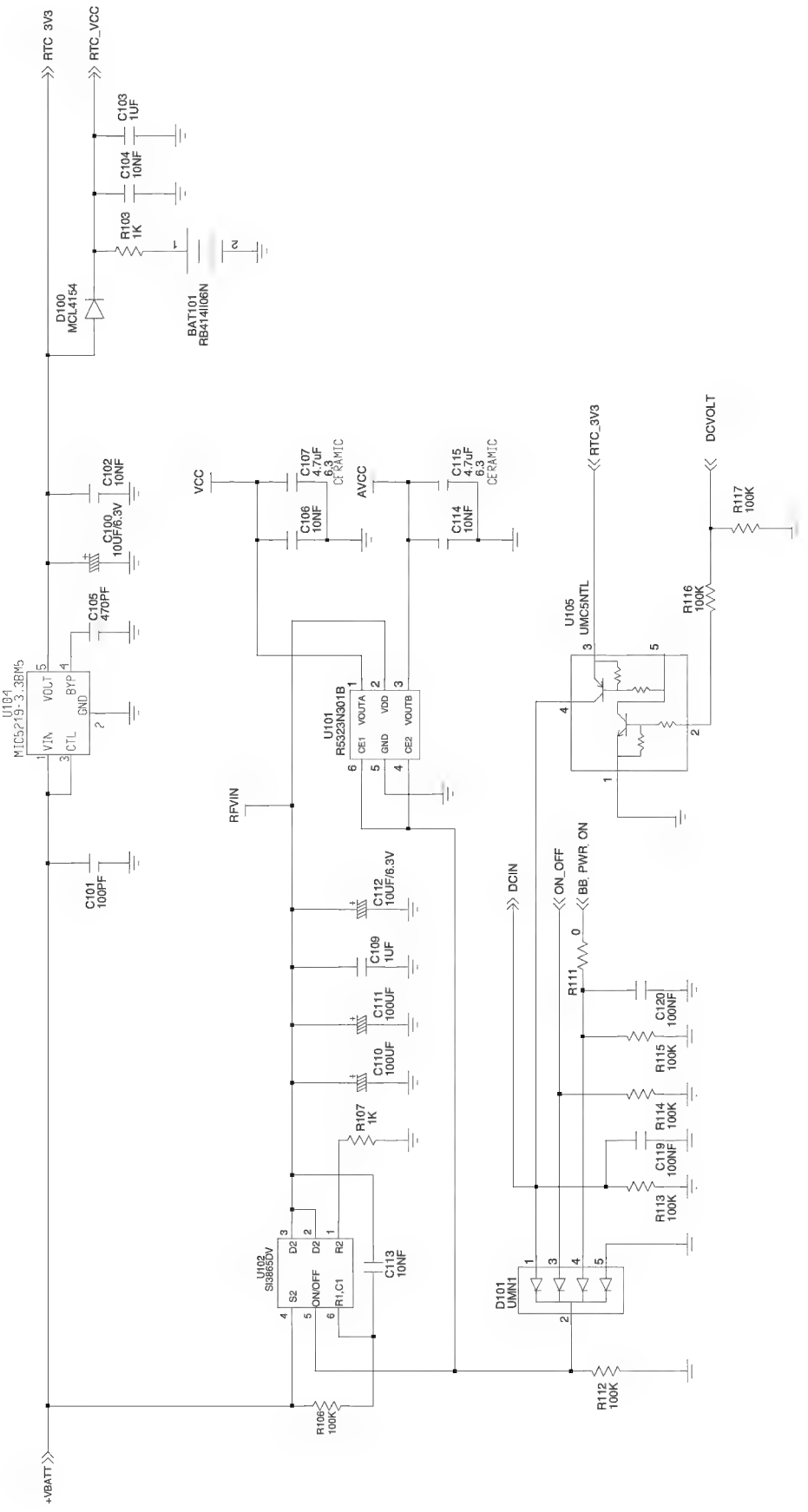
4-2-2 RF Receive Part

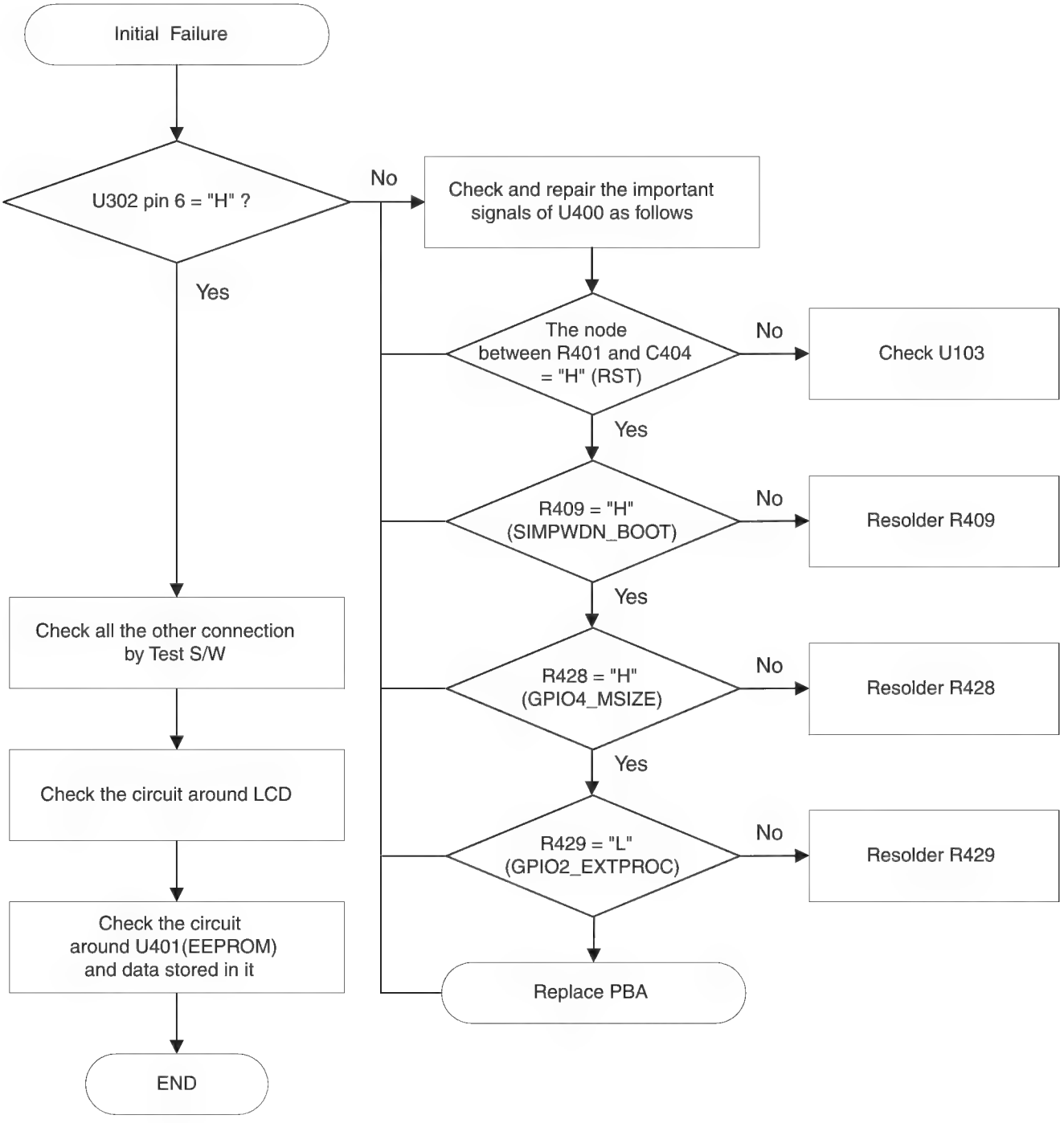


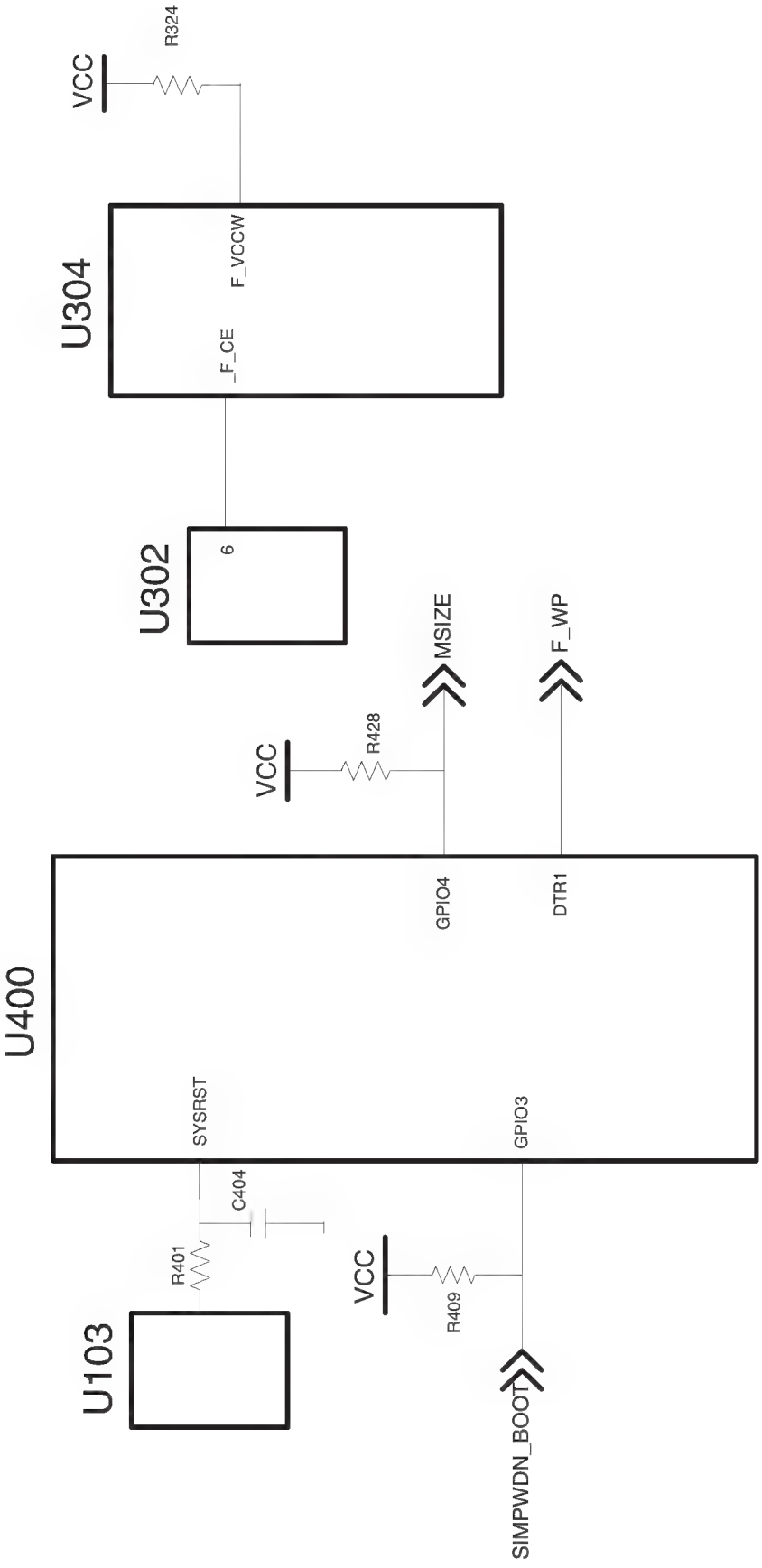
5. Flow Chart of Troubleshooting and Circuit Diagram

5-1 Power ON

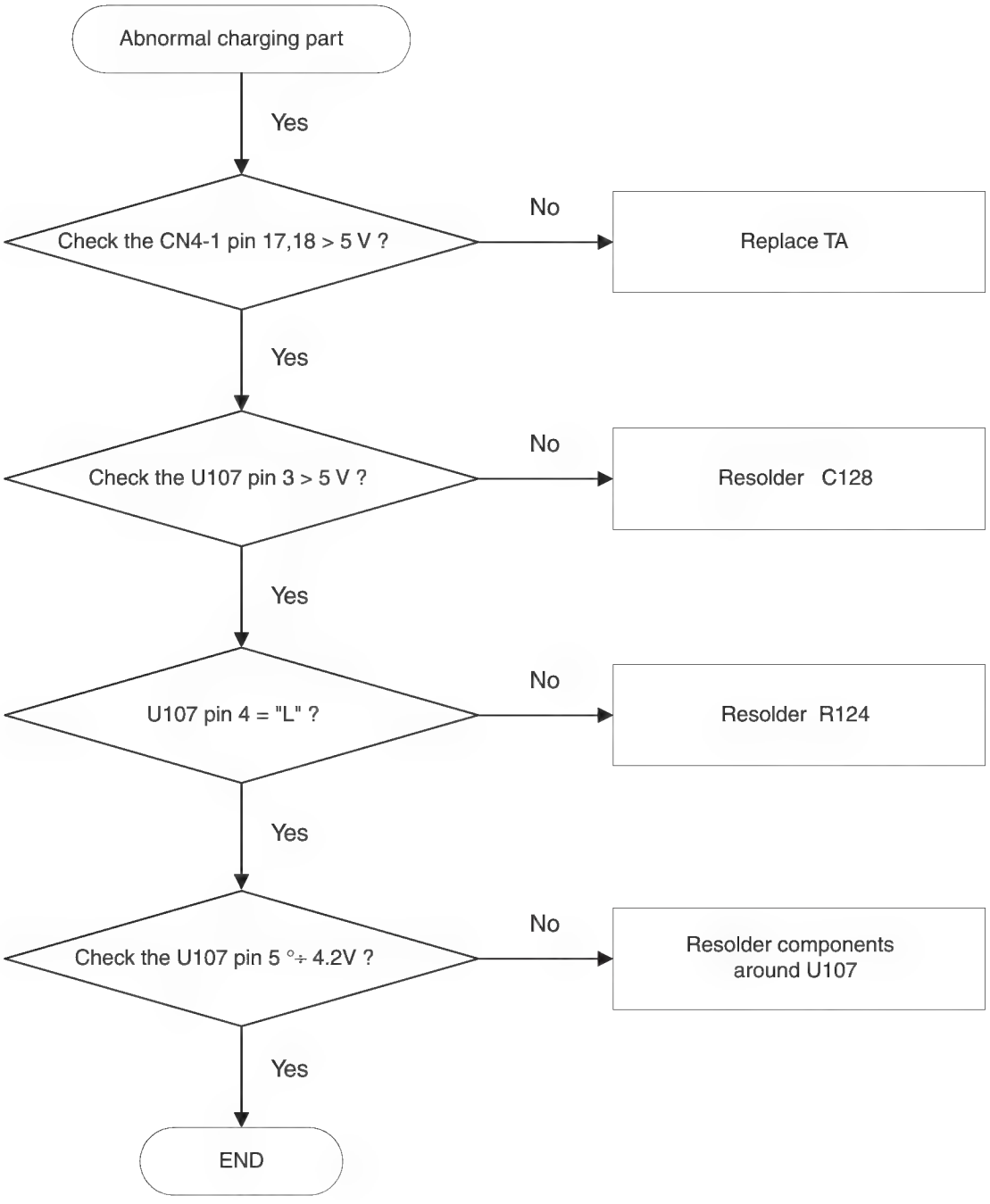


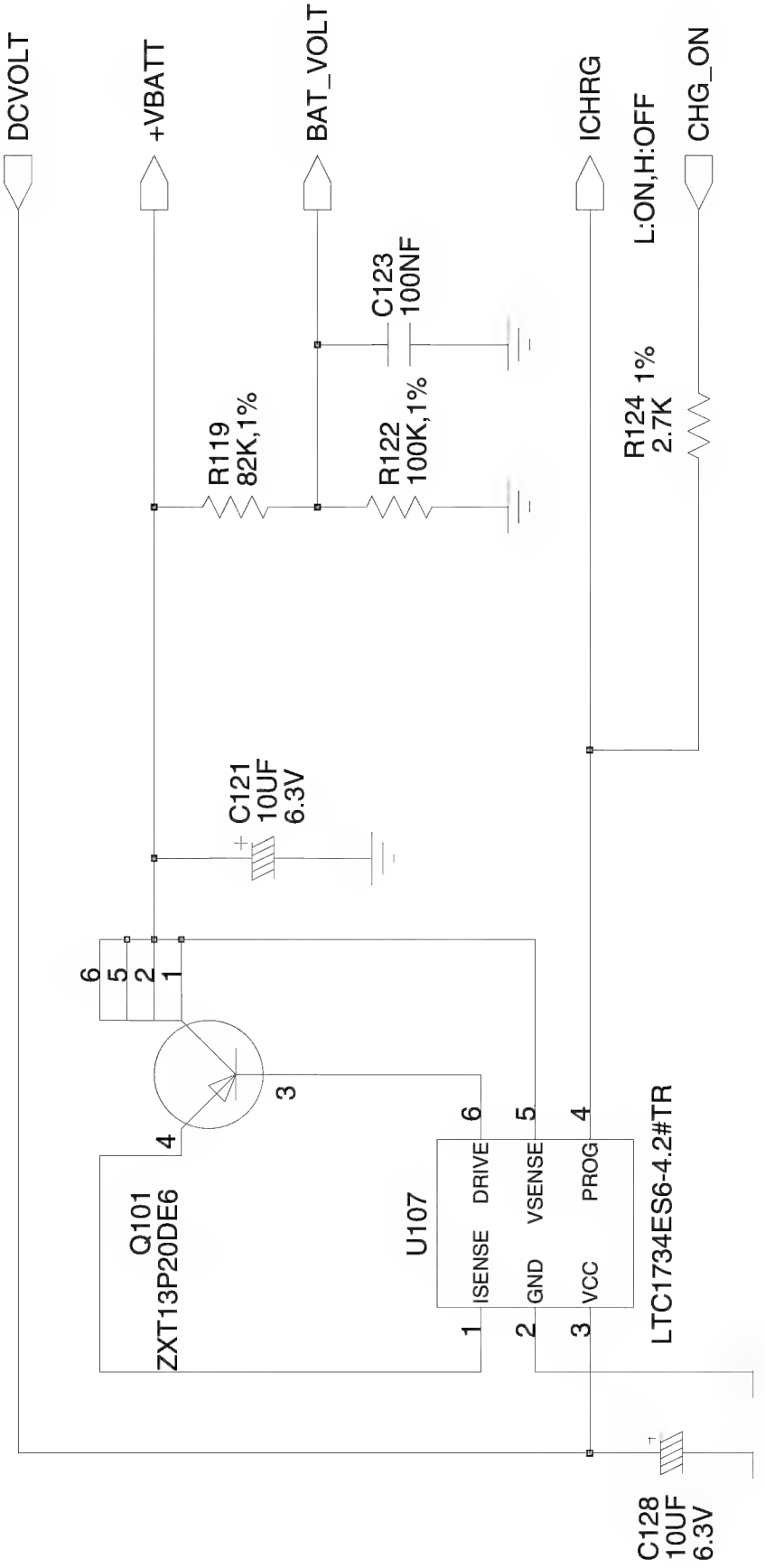

RTC 3V3
RTC_VCC
C103 1UF
C104 10NF
R103 1K
D100 MCL4154
BAT101 RB414I106N
C102 10NF
C100 10UF/6.3V
C105 470PF
U104 MIC5219-3.3BM5
VIN VOUT CTL BYP GND
C101 100PF
+VBATT
VCC
C107 4.7UF 6.3 CERAMIC
C106 10NF
AVCC
C115 4.7UF 6.3 CERAMIC
C114 10NF
U101 R5323N301B
CE1 VOUTA GND VDD CE2 VOUTB
RFVIN
C112 10UF/6.3V
C109 1UF
C111 100UF
C110 100UF
R107 1K
U102 SI3865DV
S2 ON/OFF R1,C1 D2 D2 R2
C113 10NF
R106 100K
RTC_3V3
U105 UMC5NTL
R116 100K
DCVOLT
R117 100K
DCIN
ON_OFF
BB_PWR_ON
R111 0
C120 100NF
R115 100K
R114 100K
C119 100NF
R113 100K
D101 UMN1
R112 100K

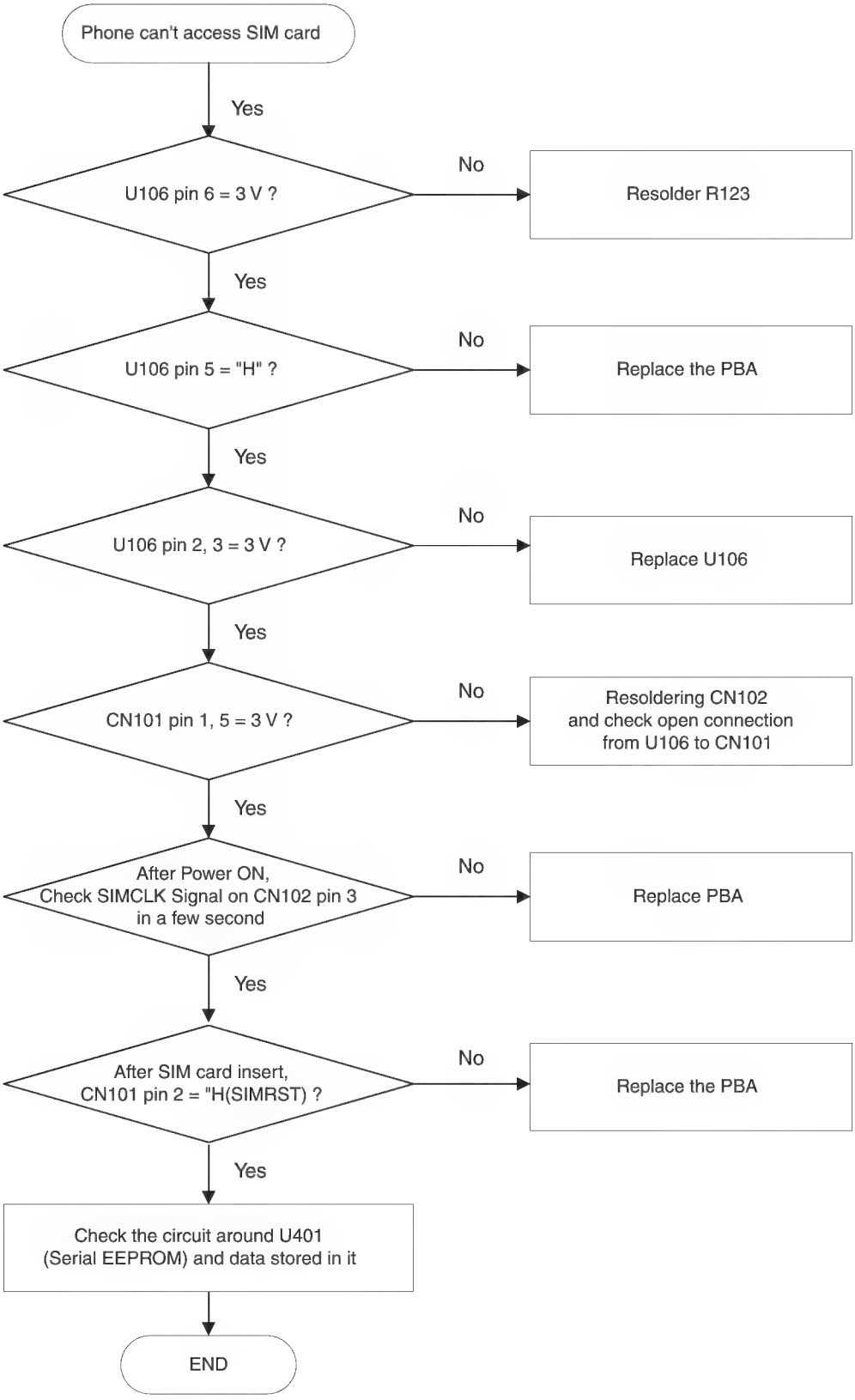

Initial Failure
U302 pin 6 = "H" ?
No
Yes
Check and repair the important signals of U400 as follows
The node between R401 and C404 = "H" (RST)
No
Check U103
Yes
R409 = "H" (SIMPWDN_BOOT)
No
Resolder R409
Yes
R428 = "H" (GPIO4_MSIZE)
No
Resolder R428
Yes
R429 = "L" (GPIO2_EXTPROC)
No
Resolder R429
Replace PBA
Check all the other connection by Test S/W
Check the circuit around LCD
Check the circuit around U401(EEPROM) and data stored in it
END

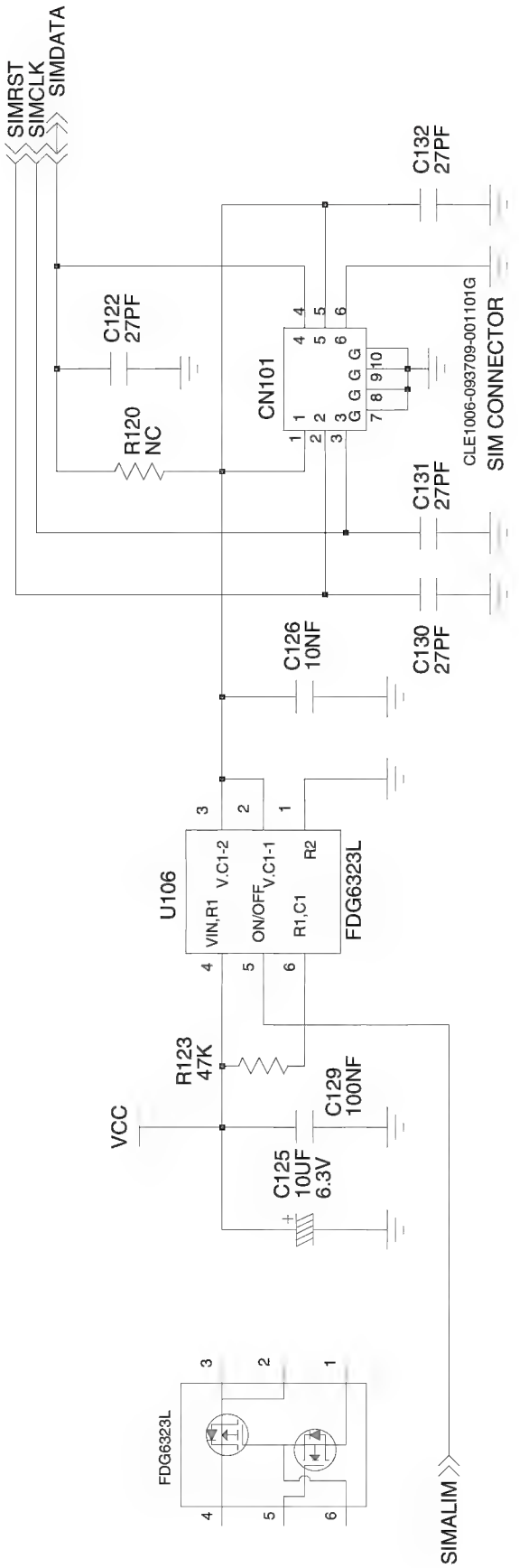

VCC
R324
U304
F_VCCW
_F_CE
U302
6
MSIZE
F_WP
VCC
R428
U400
GPIO4
DTR1
SYSRST
GPIO3
C404
R401
VCC
R409
U103
SIMPWDN_BOOT

5-3 Charging Part

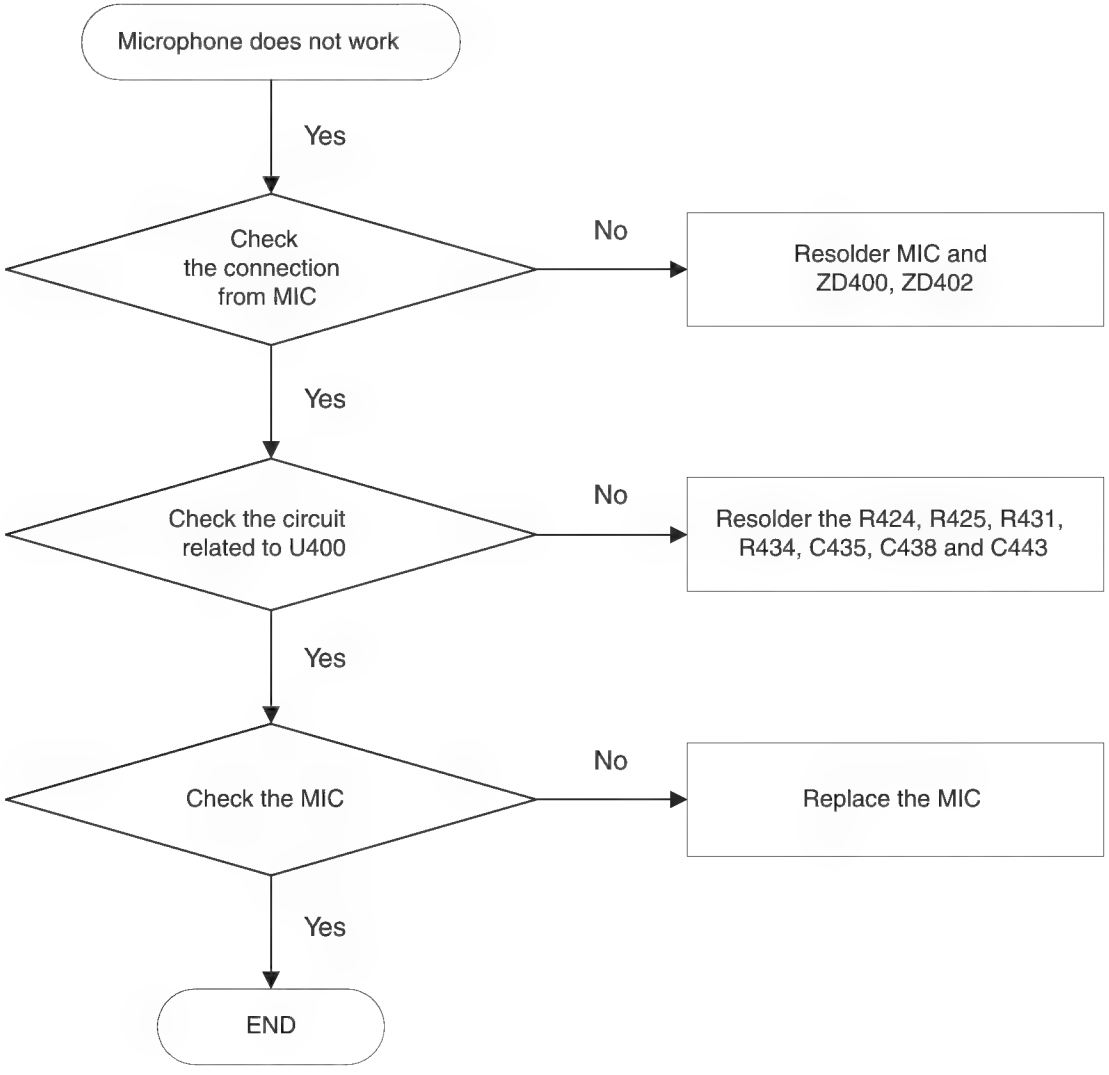


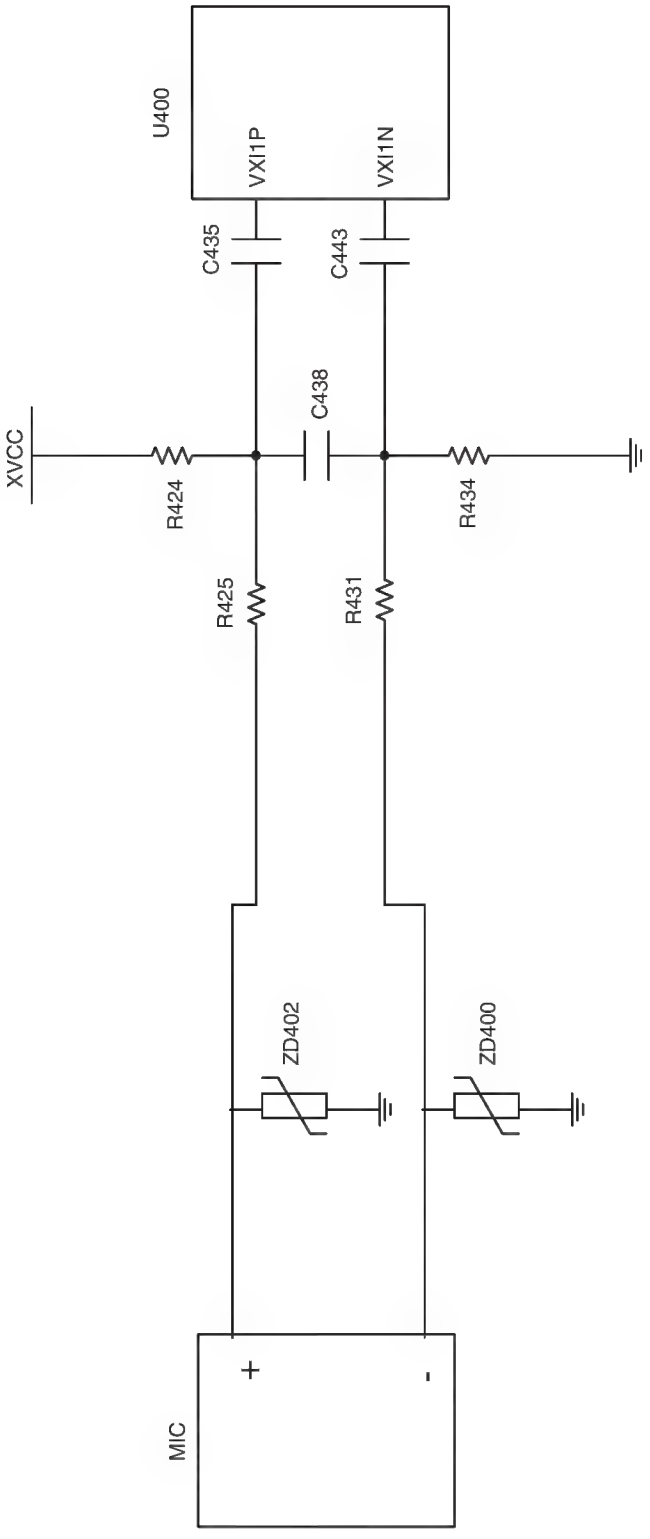

DCVOLT
+VBATT
BAT_VOLT
ICHRG
L:ON,H:OFF
CHG_ON
C123
100NF
R119
82K,1%
R122
100K,1%
R124 1%
2.7K
C121
10UF
6.3V
6
5
2
1
3
4
Q101
ZXT13P20DE6
U107
ISENSE
GND
VCC
DRIVE
VSENSE
PROG
1
2
3
6
5
4
LTC1734ES6-4.2#TR
C128
10UF
6.3V


Phone can't access SIM card
Yes
U106 pin 6 = 3 V ?
No
Resolder R123
Yes
U106 pin 5 = "H" ?
No
Replace the PBA
Yes
U106 pin 2, 3 = 3 V ?
No
Replace U106
Yes
CN101 pin 1, 5 = 3 V ?
No
Resoldering CN102
and check open connection
from U106 to CN101
Yes
After Power ON,
Check SIMCLK Signal on CN102 pin 3
in a few second
No
Replace PBA
Yes
After SIM card insert,
CN101 pin 2 = "H(SIMRST) ?
No
Replace the PBA
Yes
Check the circuit around U401
(Serial EEPROM) and data stored in it
END

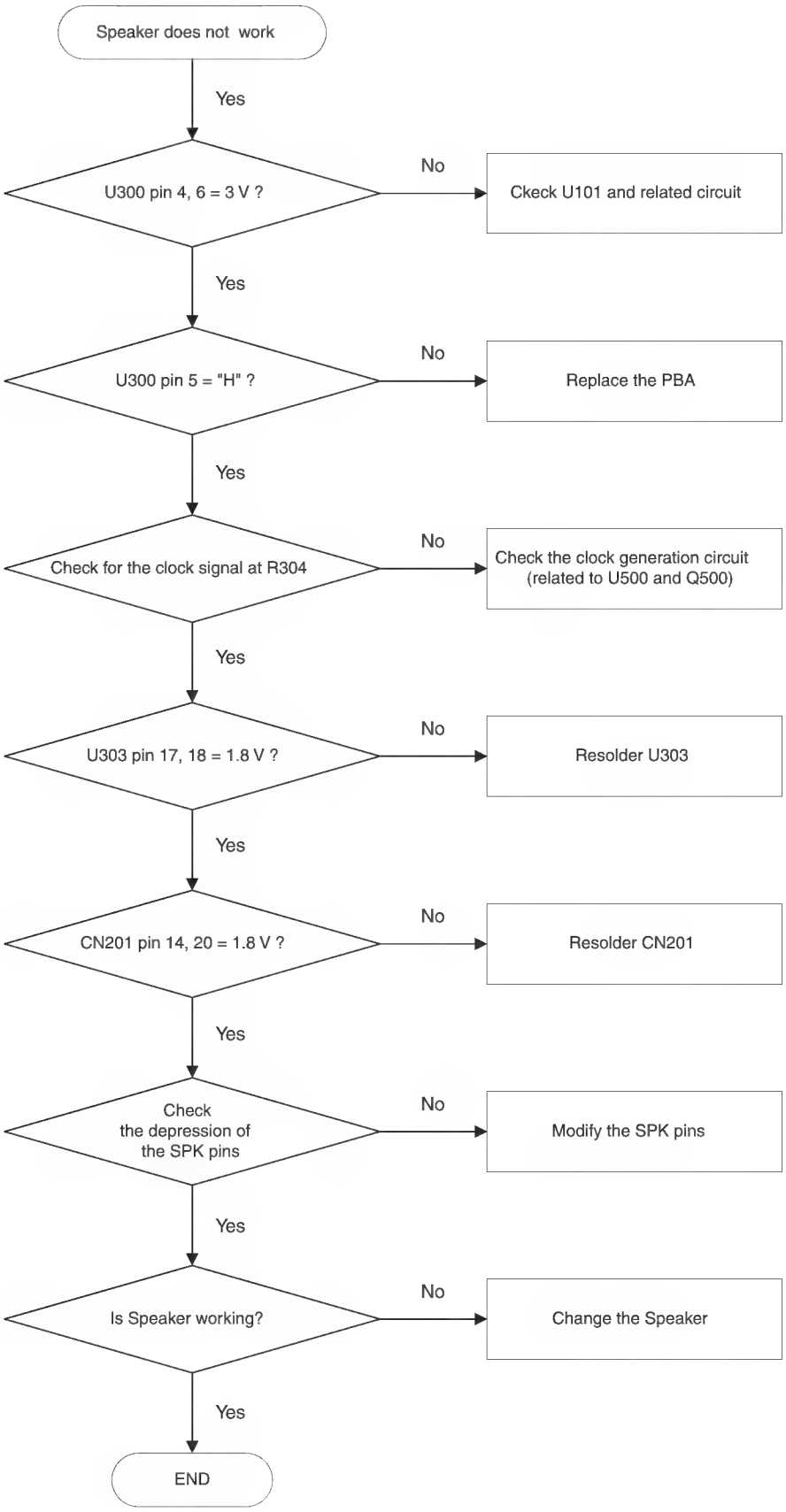

SIMRST
SIMCLK
SIMDATA
C132
27PF
C122
27PF
CN101
R120
NC
C131
27PF
CLE1006-093709-001101G
SIM CONNECTOR
C126
10NF
C130
27PF
U106
VIN,R1
V.C1-2
ON/OFF
V.C1-1
R1,C1
R2
FDG6323L
R123
47K
C129
100NF
VCC
C125
10UF
6.3V
FDG6323L
SIMALIM

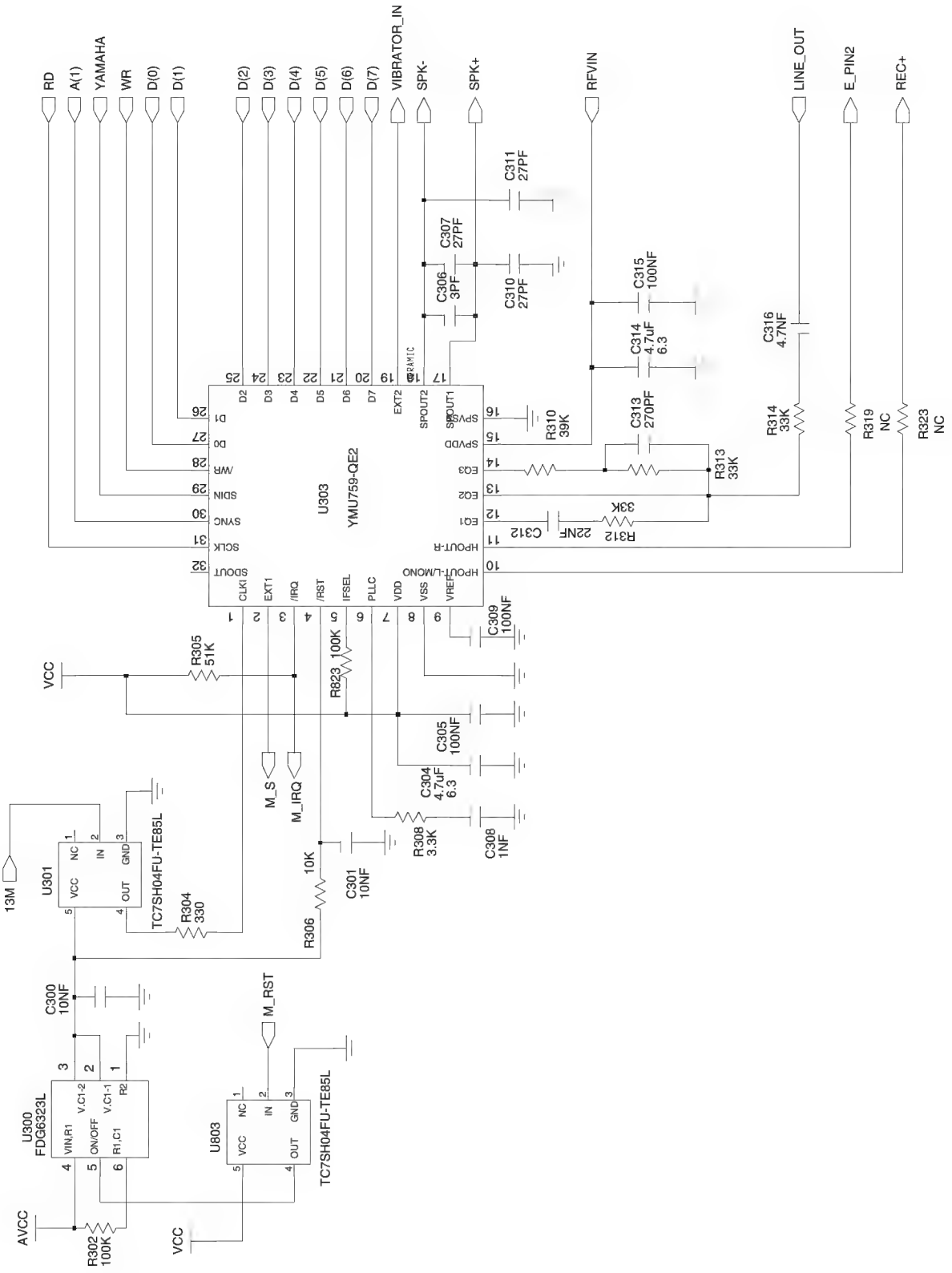
5-5 Microphone Part



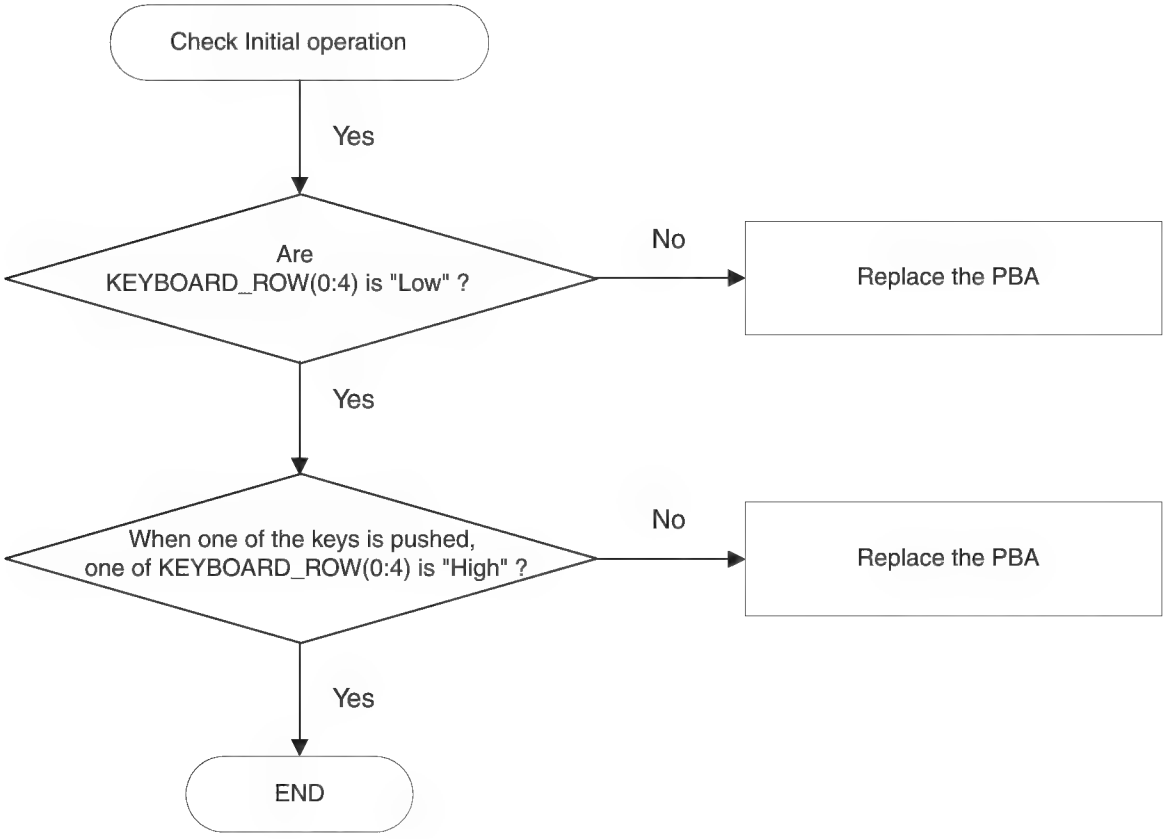

U400
VXI1P
VXI1N
C435
C443
C438
XVCC
R424
R434
R425
R431
ZD402
ZD400
MIC
+
-

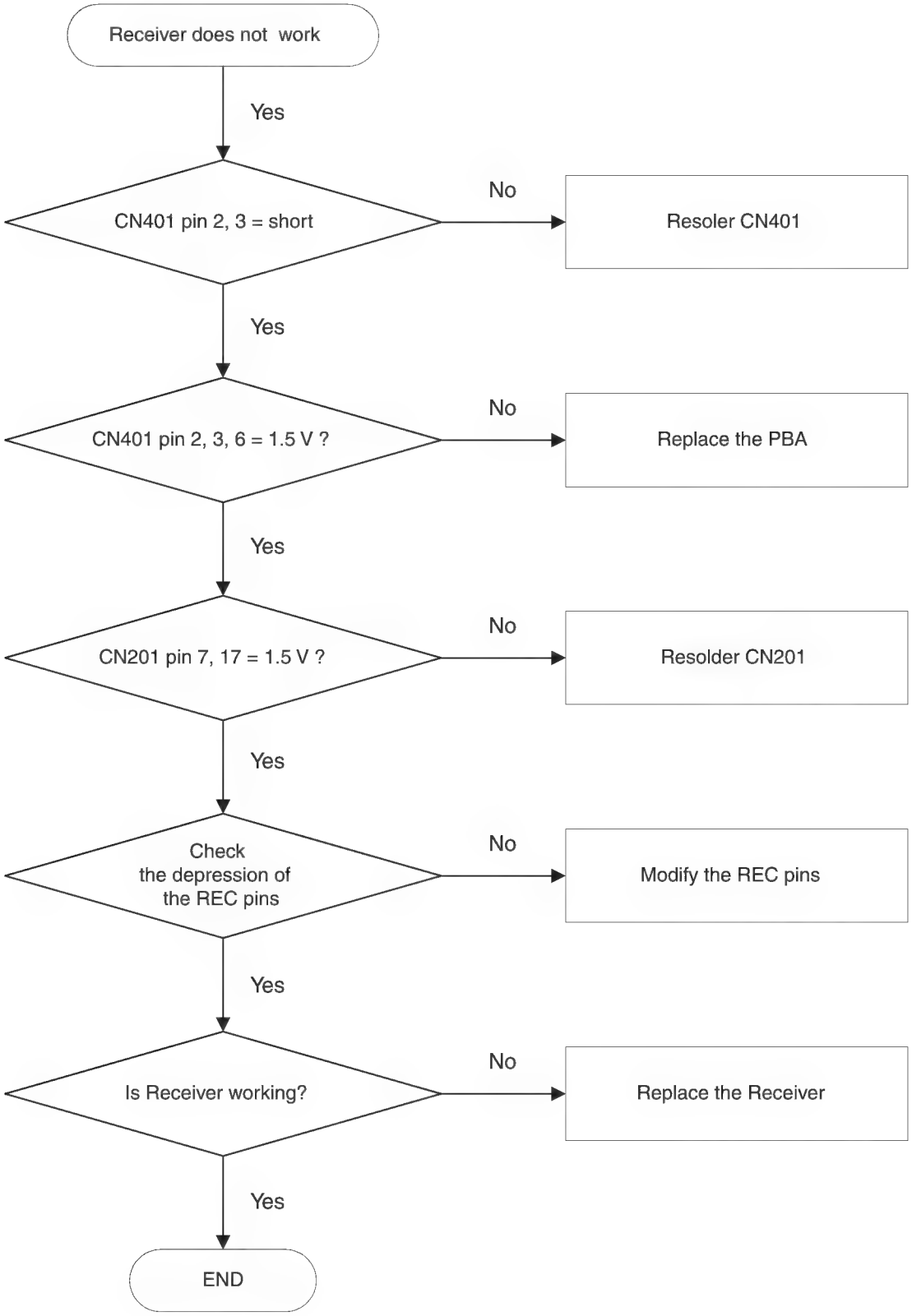
5-6 Speaker Part

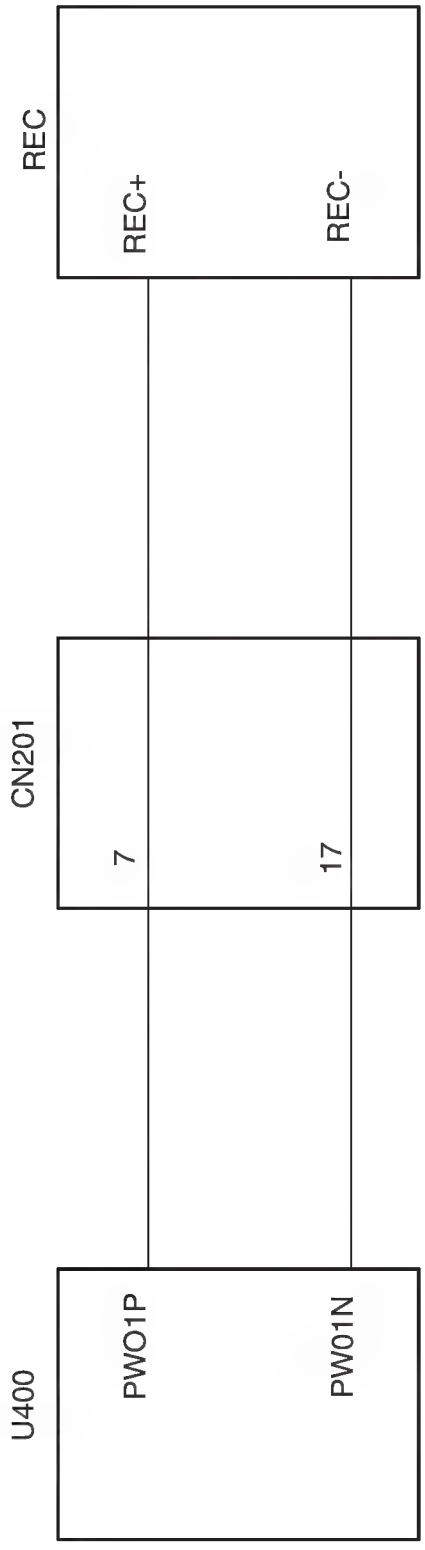


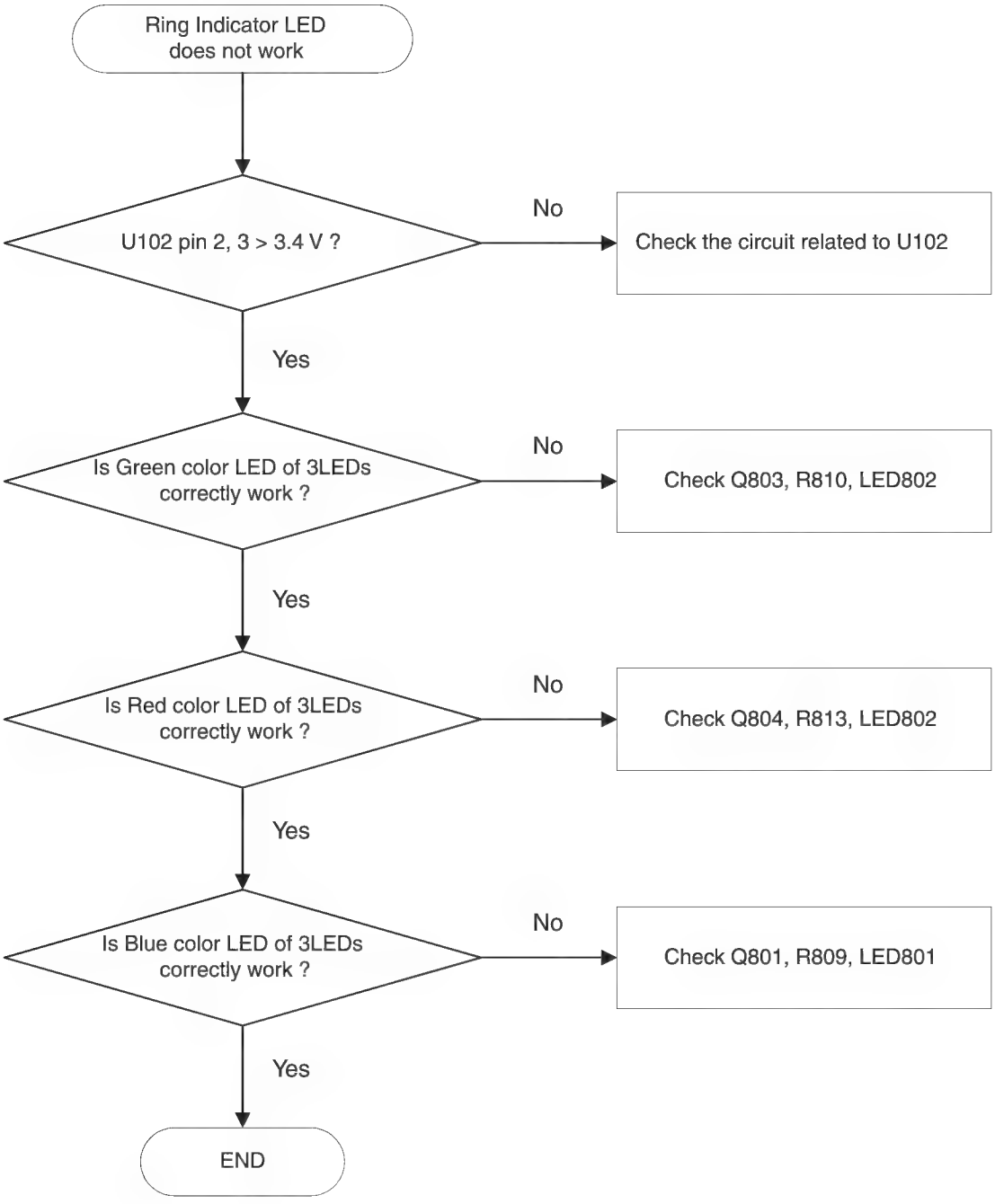

RD
A(1)
YAMAHA
WR
D(0)
D(1)
D(2)
D(3)
D(4)
D(5)
D(6)
D(7)
VIBRATOR_IN
SPK-
SPK+
RFVIN
LINE_OUT
E_PIN2
REC+
U303
YMU759-QE2
C311 27PF
C307 27PF
C306 3PF
C310 27PF
C315 100NF
C314 4.7uF 6.3
C316 4.7NF
C313 270PF
R310 39K
R313 33K
R314 33K
R319 NC
R323 NC
R312 33K
C312 22NF
C309 100NF
R305 51K
R823 100K
C305 100NF
C304 4.7uF 6.3
R308 3.3K
C308 1NF
C301 10NF
R306 10K
M_S
M_IRQ
M_RST
VCC
13M
U301
TC7SH04FU-TE85L
R304 330
C300 10NF
U300
FDG6323L
U803
TC7SH04FU-TE85L
AVCC
R302 100K

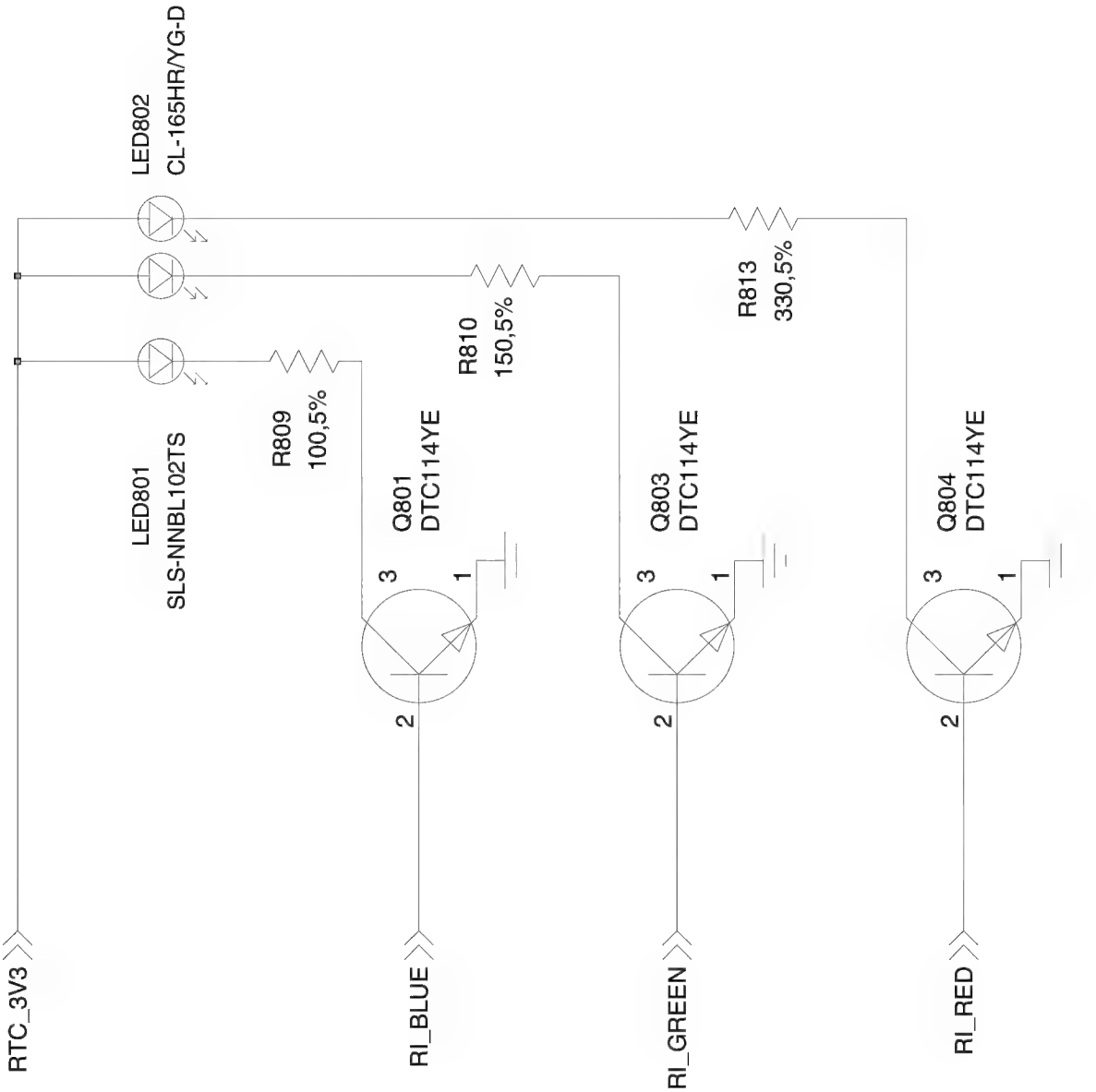
5-7 Key Data Input



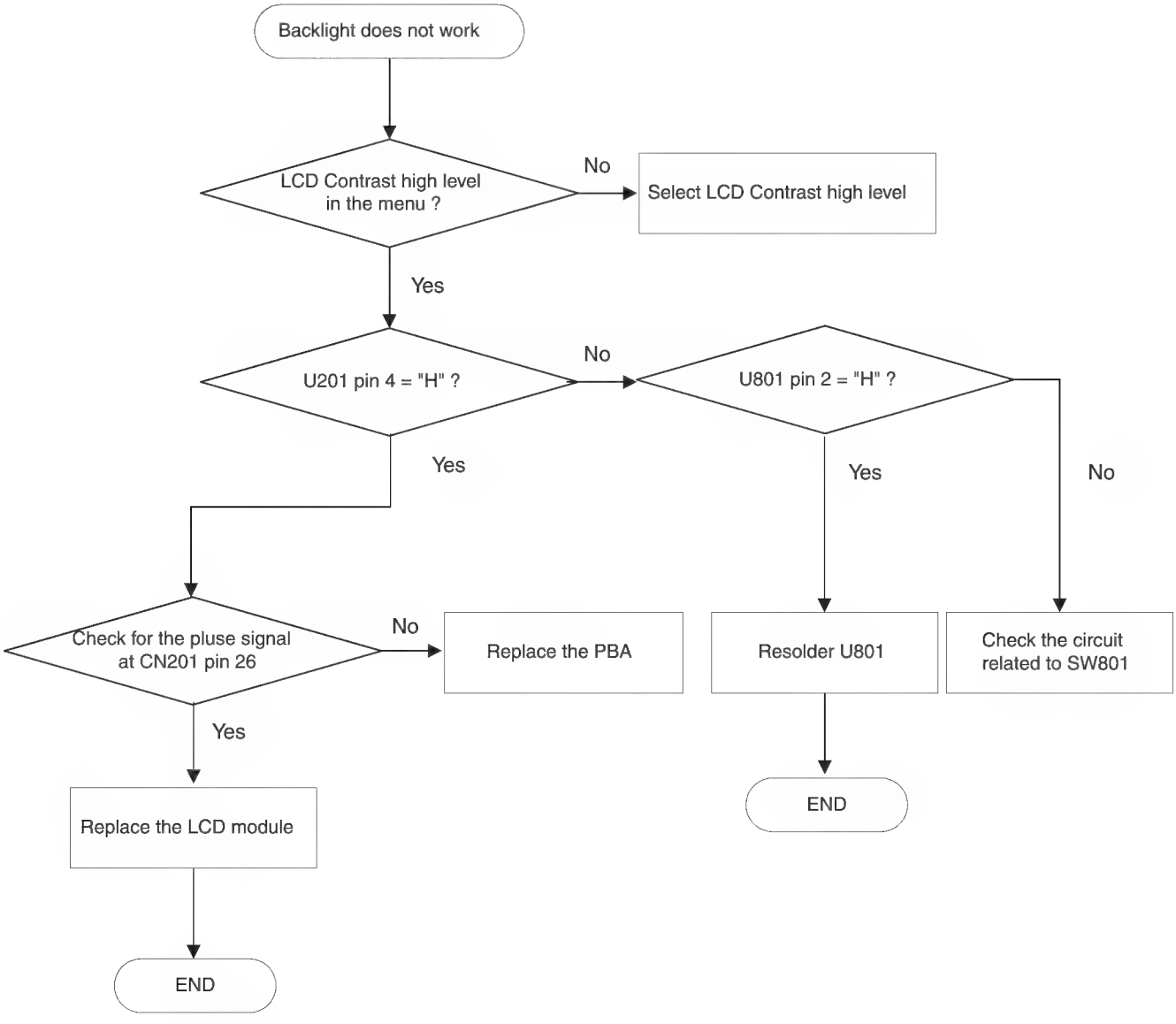

Receiver does not work
Yes
CN401 pin 2, 3 = short
No
Resoler CN401
Yes
CN401 pin 2, 3, 6 = 1.5 V ?
No
Replace the PBA
Yes
CN201 pin 7, 17 = 1.5 V ?
No
Resolder CN201
Yes
Check
the depression of
the REC pins
No
Modify the REC pins
Yes
Is Receiver working?
No
Replace the Receiver
Yes
END


REC
REC+
REC-
CN201
7
17
U400
PWO1P
PW01N

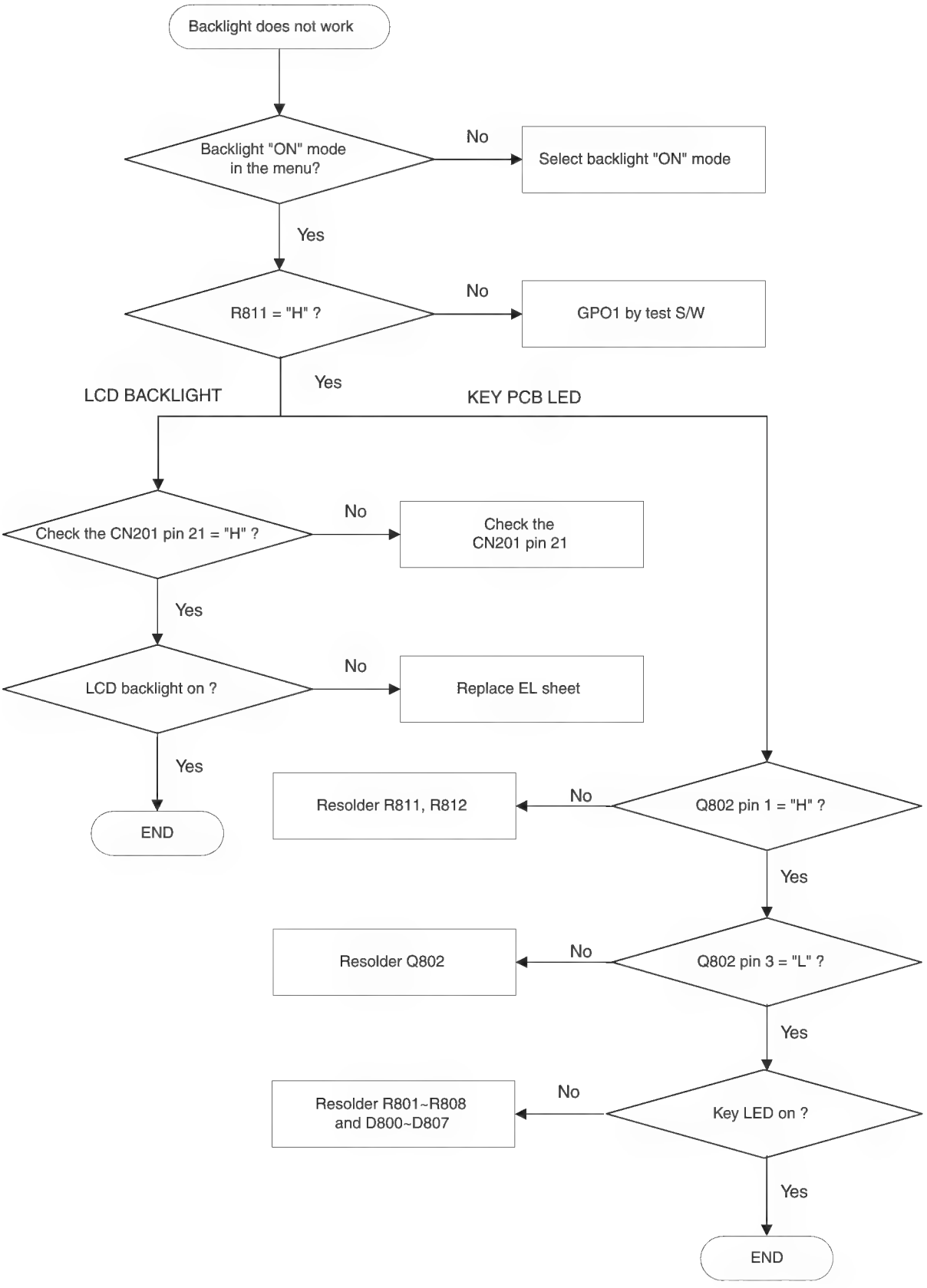

Ring Indicator LED does not work
U102 pin 2, 3 > 3.4 V ?
No
Check the circuit related to U102
Yes
Is Green color LED of 3LEDs correctly work ?
No
Check Q803, R810, LED802
Yes
Is Red color LED of 3LEDs correctly work ?
No
Check Q804, R813, LED802
Yes
Is Blue color LED of 3LEDs correctly work ?
No
Check Q801, R809, LED801
Yes
END

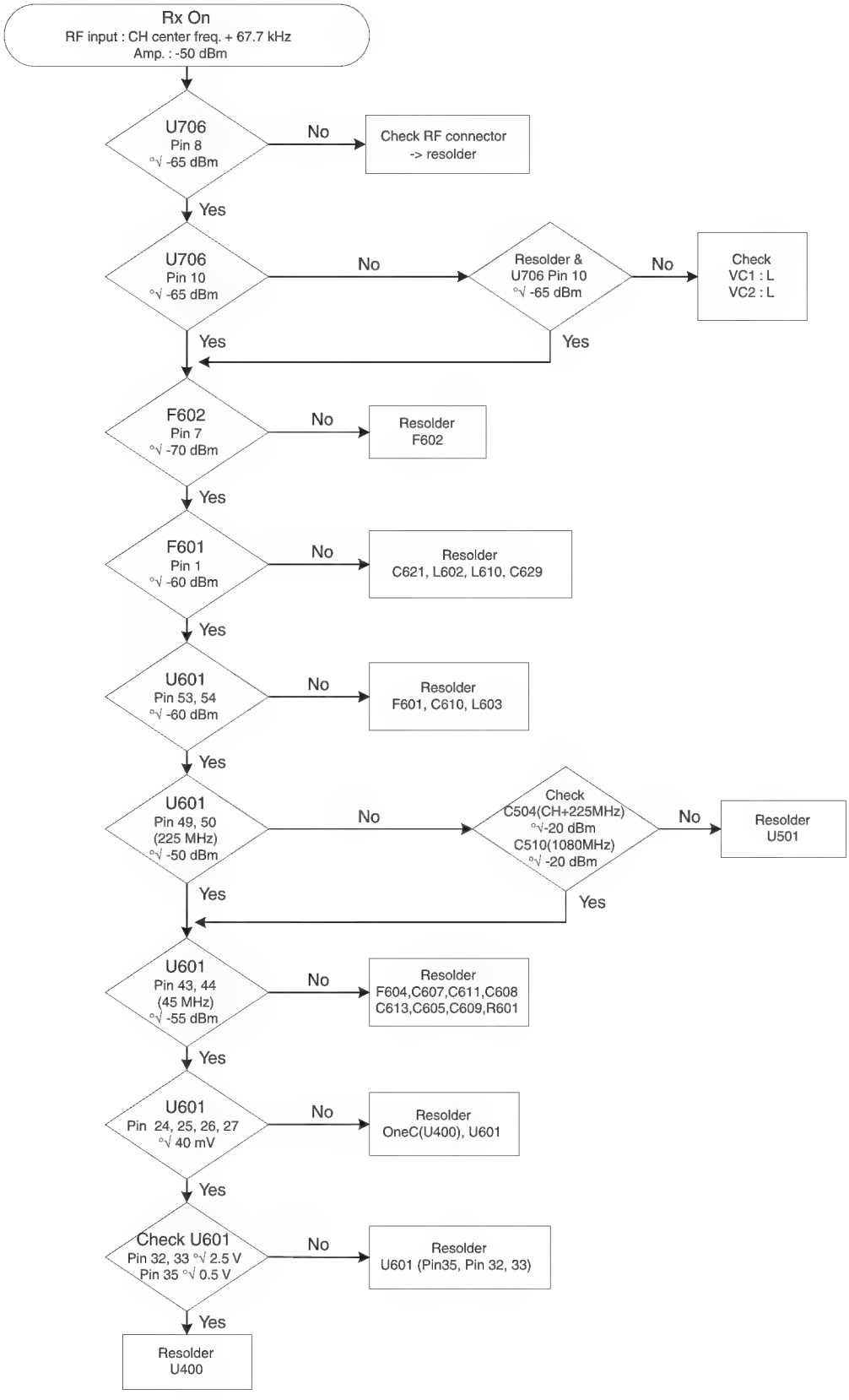

LED802
CL-165HR/YG-D
LED801
SLS-NNBL102TS
R809
100,5%
R810
150,5%
R813
330,5%
Q801
DTC114YE
Q803
DTC114YE
Q804
DTC114YE
3
1
2
RTC_3V3
RI_BLUE
RI_GREEN
RI_RED

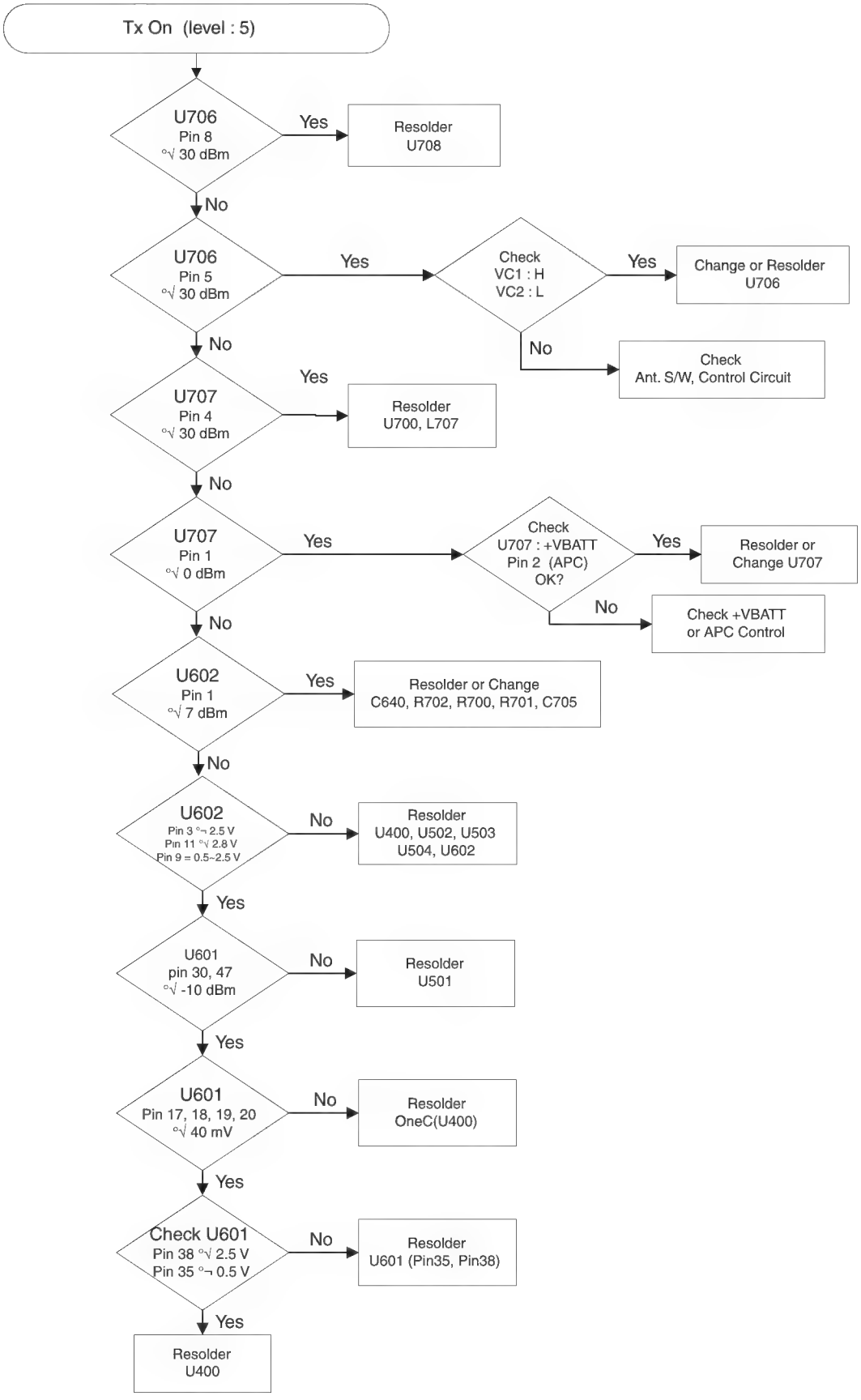
5-10 Back Light (for Color Main LCD)

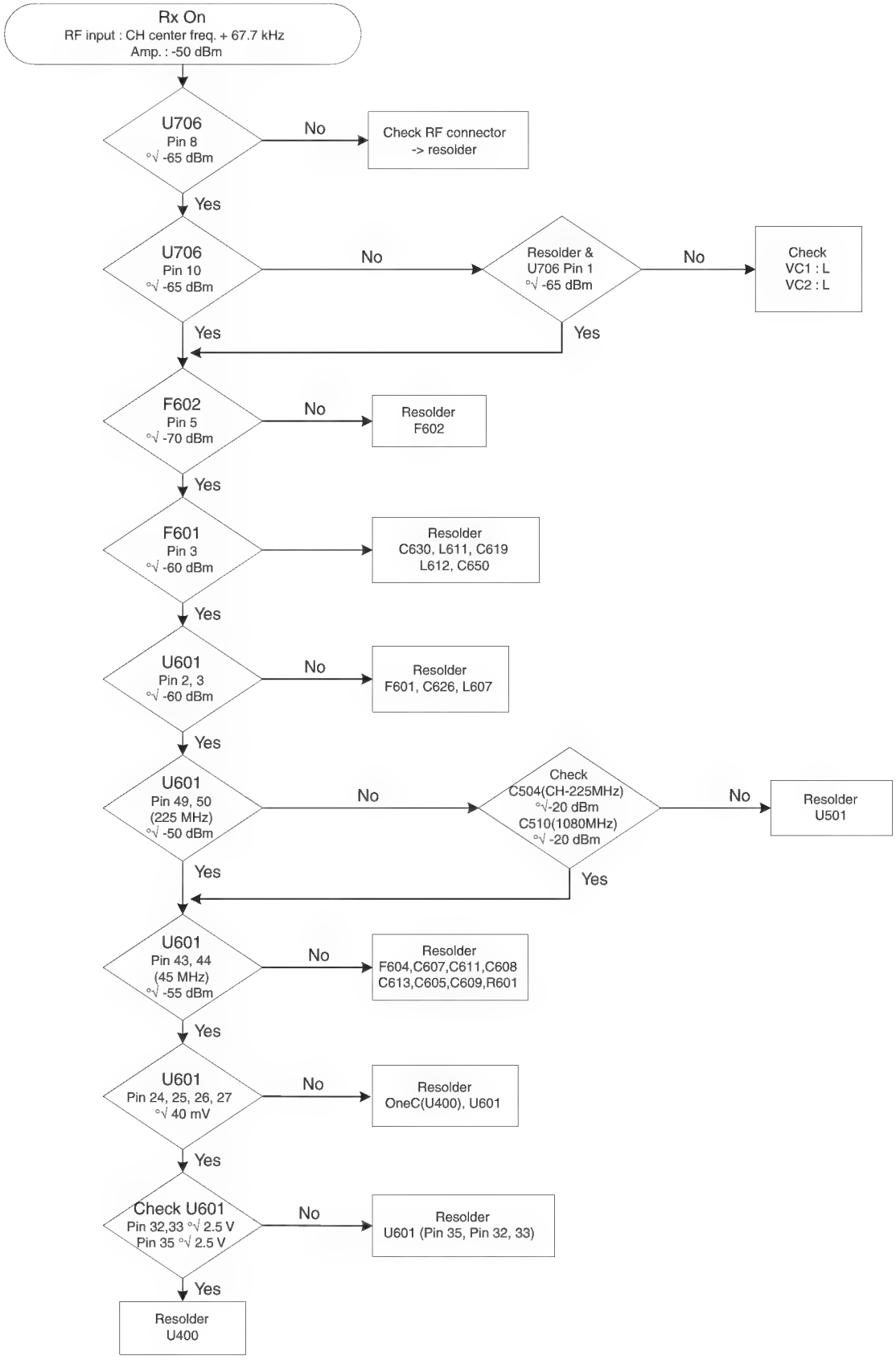


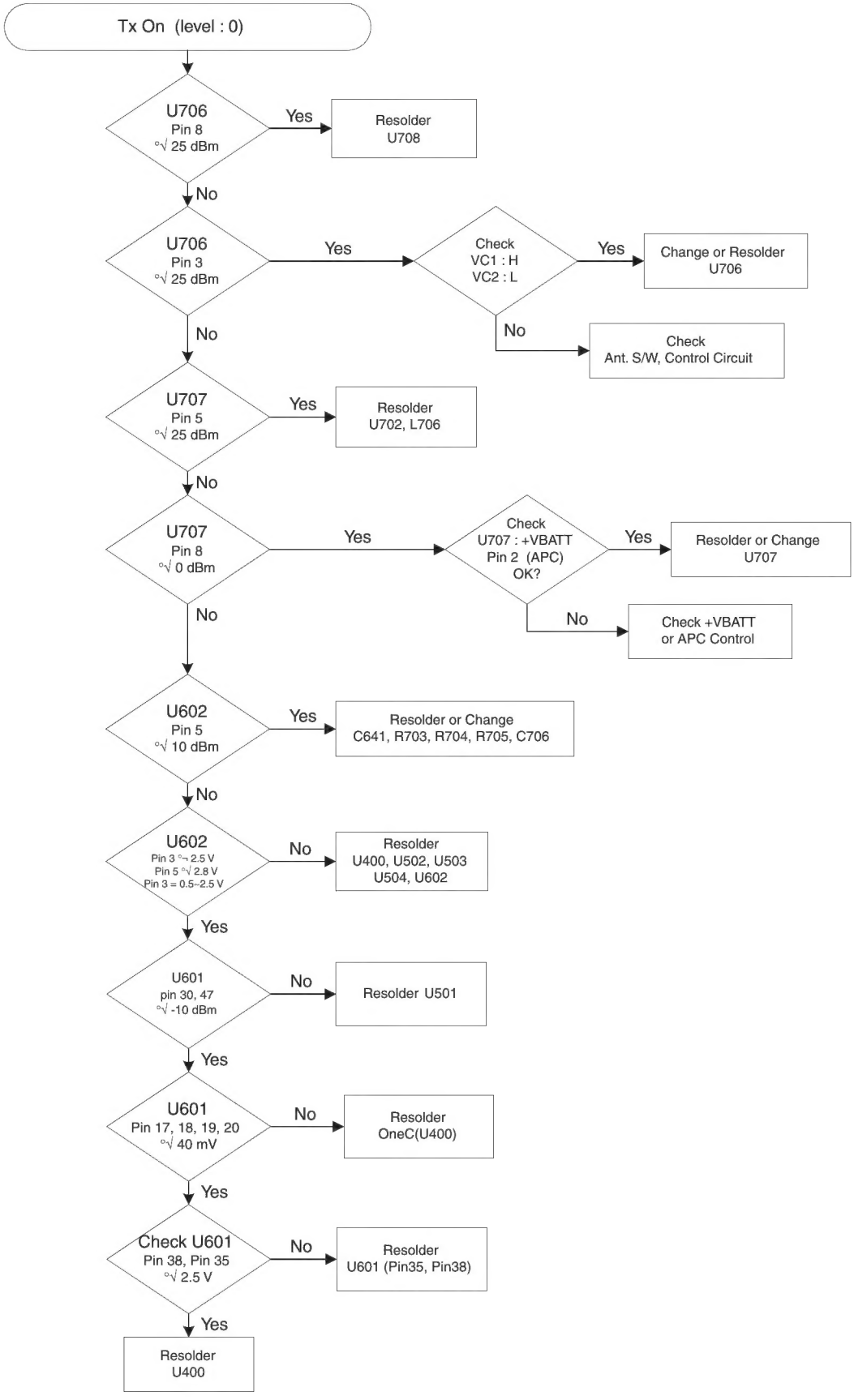
5-11 Back Light (for sub LCD & Key)

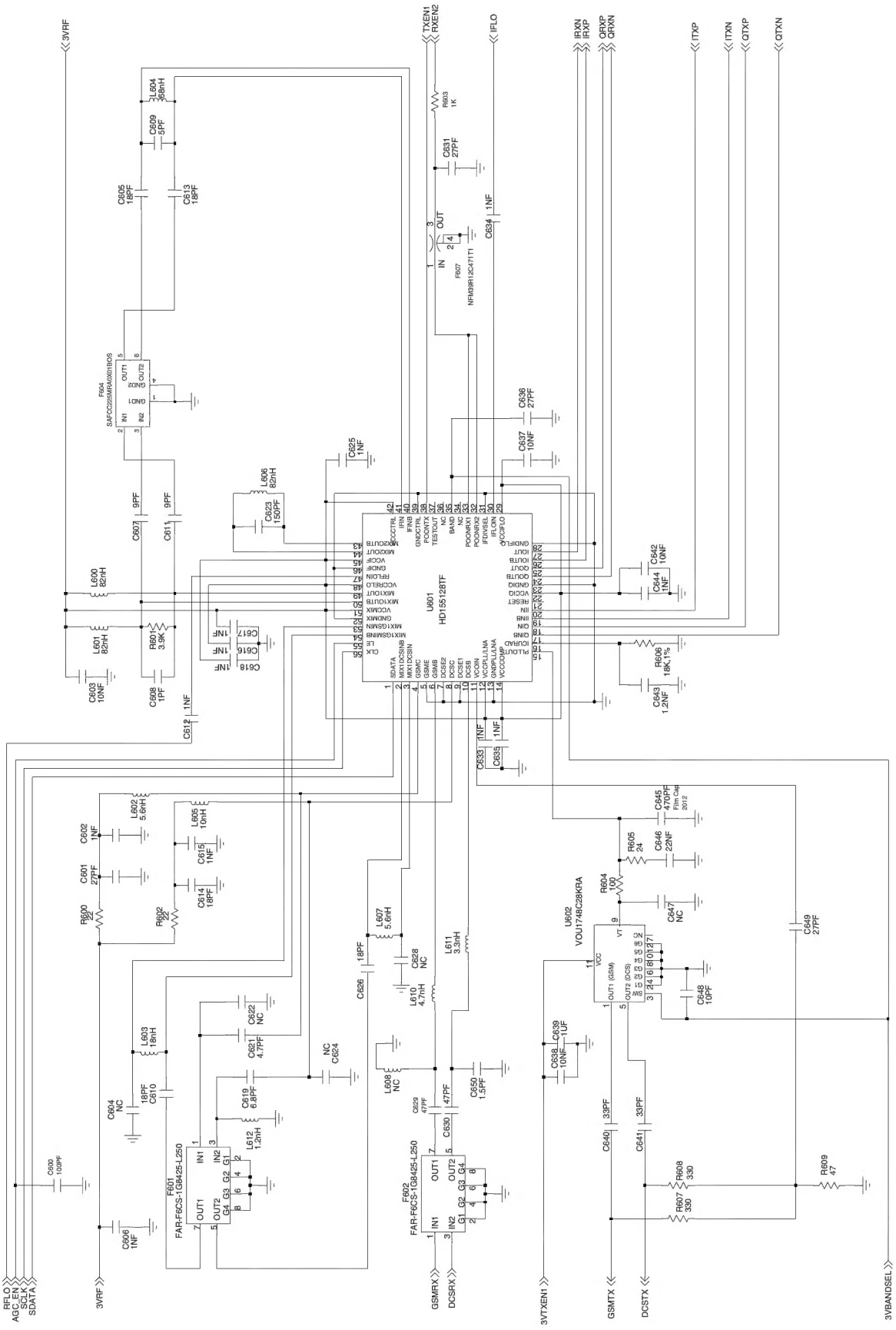


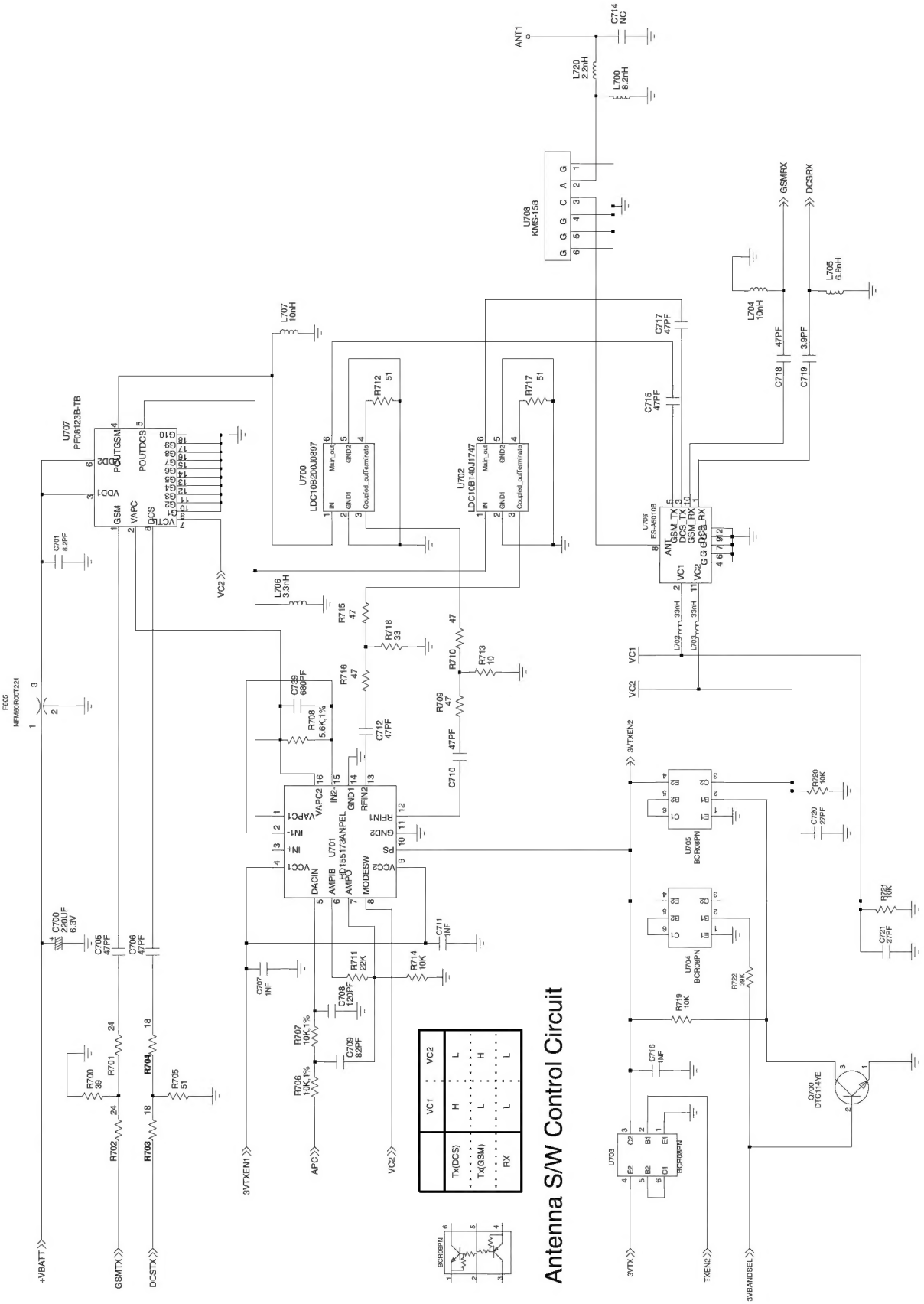

Rx On
RF input : CH center freq. + 67.7 kHz
Amp. : -50 dBm
U706
Pin 8
°√ -65 dBm
No
Check RF connector
-> resolder
Yes
U706
Pin 10
°√ -65 dBm
No
Resolder &
U706 Pin 10
°√ -65 dBm
No
Check
VC1 : L
VC2 : L
Yes
Yes
F602
Pin 7
°√ -70 dBm
No
Resolder
F602
Yes
F601
Pin 1
°√ -60 dBm
No
Resolder
C621, L602, L610, C629
Yes
U601
Pin 53, 54
°√ -60 dBm
No
Resolder
F601, C610, L603
Yes
U601
Pin 49, 50
(225 MHz)
°√ -50 dBm
No
Check
C504(CH+225MHz)
°√-20 dBm
C510(1080MHz)
°√ -20 dBm
No
Resolder
U501
Yes
Yes
U601
Pin 43, 44
(45 MHz)
°√ -55 dBm
No
Resolder
F604,C607,C611,C608
C613,C605,C609,R601
Yes
U601
Pin 24, 25, 26, 27
°√ 40 mV
No
Resolder
OneC(U400), U601
Yes
Check U601
Pin 32, 33 °√ 2.5 V
Pin 35 °√ 0.5 V
No
Resolder
U601 (Pin35, Pin 32, 33)
Yes
Resolder
U400

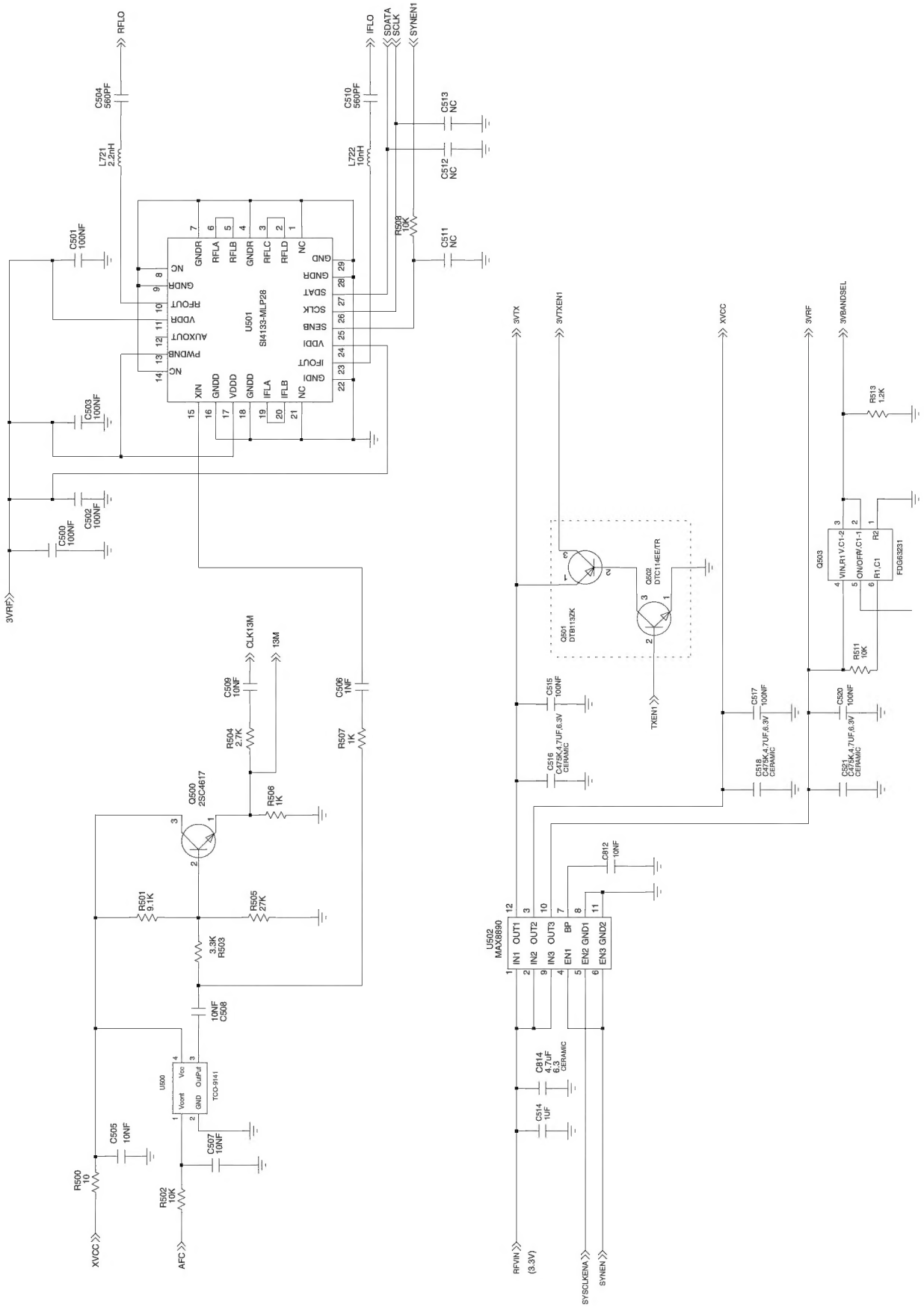

Tx On (level : 5)
U706
Pin 8
°√ 30 dBm
Yes
Resolder
U708
No
U706
Pin 5
°√ 30 dBm
Yes
Check
VC1 : H
VC2 : L
Yes
Change or Resolder
U706
No
Check
Ant. S/W, Control Circuit
No
U707
Pin 4
°√ 30 dBm
Yes
Resolder
U700, L707
No
U707
Pin 1
°√ 0 dBm
Yes
Check
U707 : +VBATT
Pin 2 (APC)
OK?
Yes
Resolder or
Change U707
No
Check +VBATT
or APC Control
No
U602
Pin 1
°√ 7 dBm
Yes
Resolder or Change
C640, R702, R700, R701, C705
No
U602
Pin 3 °¬ 2.5 V
Pin 11 °√ 2.8 V
Pin 9 = 0.5~2.5 V
No
Resolder
U400, U502, U503
U504, U602
Yes
U601
pin 30, 47
°√ -10 dBm
No
Resolder
U501
Yes
U601
Pin 17, 18, 19, 20
°√ 40 mV
No
Resolder
OneC(U400)
Yes
Check U601
Pin 38 °√ 2.5 V
Pin 35 °¬ 0.5 V
No
Resolder
U601 (Pin35, Pin38)
Yes
Resolder
U400


Rx On
RF input : CH center freq. + 67.7 kHz
Amp. : -50 dBm
U706
Pin 8
°√ -65 dBm
No
Check RF connector
-> resolder
Yes
U706
Pin 10
°√ -65 dBm
No
Resolder &
U706 Pin 1
°√ -65 dBm
No
Check
VC1 : L
VC2 : L
Yes
Yes
F602
Pin 5
°√ -70 dBm
No
Resolder
F602
Yes
F601
Pin 3
°√ -60 dBm
Resolder
C630, L611, C619
L612, C650
Yes
U601
Pin 2, 3
°√ -60 dBm
No
Resolder
F601, C626, L607
Yes
U601
Pin 49, 50
(225 MHz)
°√ -50 dBm
No
Check
C504(CH-225MHz)
°√-20 dBm
C510(1080MHz)
°√ -20 dBm
No
Resolder
U501
Yes
Yes
U601
Pin 43, 44
(45 MHz)
°√ -55 dBm
No
Resolder
F604,C607,C611,C608
C613,C605,C609,R601
Yes
U601
Pin 24, 25, 26, 27
°√ 40 mV
No
Resolder
OneC(U400), U601
Yes
Check U601
Pin 32,33 °√ 2.5 V
Pin 35 °√ 2.5 V
No
Resolder
U601 (Pin 35, Pin 32, 33)
Yes
Resolder
U400


Tx On (level : 0)
U706
Pin 8
°√ 25 dBm
Yes
Resolder
U708
No
U706
Pin 3
°√ 25 dBm
Yes
Check
VC1 : H
VC2 : L
Yes
Change or Resolder
U706
No
Check
Ant. S/W, Control Circuit
No
U707
Pin 5
°√ 25 dBm
Yes
Resolder
U702, L706
No
U707
Pin 8
°√ 0 dBm
Yes
Check
U707 : +VBATT
Pin 2 (APC)
OK?
Yes
Resolder or Change
U707
No
Check +VBATT
or APC Control
No
U602
Pin 5
°√ 10 dBm
Yes
Resolder or Change
C641, R703, R704, R705, C706
No
U602
Pin 3 °¬ 2.5 V
Pin 5 °√ 2.8 V
Pin 3 = 0.5~2.5 V
No
Resolder
U400, U502, U503
U504, U602
Yes
U601
pin 30, 47
°√ -10 dBm
No
Resolder U501
Yes
U601
Pin 17, 18, 19, 20
°√ 40 mV
No
Resolder
OneC(U400)
Yes
Check U601
Pin 38, Pin 35
°√ 2.5 V
No
Resolder
U601 (Pin35, Pin38)
Yes
Resolder
U400




Antenna S/W Control Circuit
ANT1
C714 NC
L720 2.2nH
L700 8.2nH
L708 KMS-158
GSMRX
DCSRX
L704 10nH
L705 8.8nH
C718 47PF
C719 3.9PF
C717 47PF
C715 47PF
U707 PF08123B-TB
U700 LDC10B200J0897
U702 LDC10B140J1747
U706 ES-A5010B
L707 10nH
L706 3.3nH
R712 51
R717 51
C701 8.2PF
VC2
R715 47
R718 33
R716 47
R710 47
R713 10
R709 47
C710 47PF
C712 47PF
C709 68PF
R708 5.6K,1%
U701 HD155173ANPEL
C711 1NF
R714 10K
R711 22K
C708 120PF
C707 1NF
R707 10K,1%
R706 10K,1%
C709 82PF
3VTXEN1
APC
VC2
L709 33nH
L703 33nH
VC1
VC2
3VTXEN2
U705 BCR08PN
U704 BCR08PN
R720 10K
C720 27PF
R721 10K
C721 27PF
R722 39K
R719 10K
C716 1NF
Q700 DTC114YE
U703 BCR08PN
3VTX
TXEN2
3VBANDSEL
F605 NFM60R00T221
C700 220UF 6.3V
C705 47PF
C706 47PF
R700 39
R701 24
R704 18
R705 51
R702 24
R703 18
+VBATT
GSMTX
DCSTX
Tx(DCS) VC1 H VC2 L
Tx(GSM) L H L
RX L L
BCR08PN


RFLO
IFLO
SDATA
SCLK
SYNEN1
C504 560PF
C510 560PF
L721 2.2nH
L722 10nH
C513 NC
C512 NC
C511 NC
R508 10K
C501 100NF
C503 100NF
C502 100NF
C500 100NF
3VRF
U501 SI4133-MLP28
GNDR
RFLA
RFLB
GNDR
RFLC
RFLD
NC
GND
GNDR
SDAT
SCLK
SENB
VDDI
IFOUT
GNDI
NC
GNDD
VDDD
GNDD
IFLA
IFLB
NC
XIN
NC
GNDR
RFOUT
VDDR
AUXOUT
PWDNB
NC
3VTX
3VTXEN1
XVCC
3VRF
3VBANDSEL
R513 1.2K
Q503 FDG63231
VIN,R1 V.C1-2
ON/OFF/.C1-1
R1,C1
R2
R511 10K
C520 100NF
C521 C475K,4.7UF/6.3V CERAMIC
C517 100NF
C518 C475K,4.7UF/6.3V CERAMIC
C515 100NF
C516 C475K,4.7UF/6.3V CERAMIC
Q501 DTB113ZK
Q502 DTC114EE/TR
TXEN1
CLK13M
13M
C509 10NF
C506 1NF
R504 2.7K
R507 1K
Q500 2SC4617
R506 1K
R501 9.1K
R505 27K
3.3K R503
10NF C508
U500 TCO-9141
Vcont
Vcc
GND
OutPut
C505 10NF
C507 10NF
R500 10
R502 10K
XVCC
AFC
U502 MAX88890
IN1 OUT1
IN2 OUT2
IN3 OUT3
EN1 BP
EN2 GND1
EN3 GND2
C912 10NF
C814 4.7UF 6.3 CERAMIC
C514 1UF
RFVIN (3.3V)
SYSCLKENA
SYNEN